Final Report

Fish Processing Policy Review

Eric Dunne, Commissioner

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Acknowledgements

I wish to acknowledge with gratitude the extensive input from participants at all meetings held by the Commission. I also appreciate the sincere and professional manner in which all points of view were presented. Without such contributions the efforts of the Commission would have been much less fruitful. I am in debt to members of the industry and other stakeholders who presented me with a wide range of views and suggestions for solving the problems of the processing sector. I am equally indebted to both provincial and federal government officials for their advice and assistance during the conduct of this policy review.

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EXECUTIVE SUMMARY

The Report is the outcome of a policy review of the province's management of the fish processing sector. It is, then, an exercise in policy development in that the results are proposals for management measures the province may adopt in respect of its jurisdictional responsibility for this activity. Change in the fishery takes place more by evolution than revolution; what is unacceptable today becomes desirable tomorrow or the next day. Management of this industry in all its aspects is often the "art of the impossible". In the end, policy development has to have a healthy dose of pragmatism.

Since the various groundfish moratoria, very little recovery has been evident in the coastal and more distant fish stocks. The increasing abundance of snow crab and Northern Shrimp, which occurred in these finfish vacuums, provided a fortuitous basis for transformation of the fishing industry. In a little over five years after the Northern Cod moratorium, a fishing economy that landed and processed just over 500,000 tons of fish annually with a landed value of $260 million now earns over double that amount from half the landed volume. Two species, crab and shrimp, now account for over 75% of the total earnings from harvesting, almost 7 percent more than the top three species (cod, crab and capelin) did before the 1990s. The province's fishing industry is now dependent on a narrow range of staple species not experienced since the salt fish era of the first half of the last century.

The processing sector has changed significantly over the last decade. There are now 122 active primary processing facilities compared to 221 in 1990. The major processing operations are now less labour-intensive and utilize the latest technology to compete in today's global marketplace. Employment levels in processing facilities are now only 58 percent of what they were in 1990. Active licensed processing capacity generates intense competition for the core species, contributes to compressed fishing and processing seasons for crab and shrimp, causes a volume-driven processing activity for the two main species and does not create conditions supportive of increasing value-added or secondary processing.

There are numerous and conflicting points of view on priorities and objectives for management of the processing sector. There are equally divergent views on the causes of the current industry troubles. All of these culminate in conflicting positions on the specific actions government should take in its jurisdiction for the processing sector. Finally, the industry is characterised by current high levels of mistrust on all sides that could impair the rational discussions that need to take place between parties in the near future.

The short-term (2 years) industry outlook is for a slight to moderate decline to occur in crab catches, and little change in the level of shrimp and groundfish landings from 2003 levels. Overall, this rather favourable outlook is based on a continuing strong crab sector with no major changes expected from shrimp or groundfish. However, proceeds from export sales will be restrained somewhat by a strong Canadian dollar.

General medium-term expectations are for a decline in crab catches of at least 30 percent, a lesser or no decline in shrimp catches and no recovery in cod and groundfish. Projections or expectations about the medium-term business prospects were less definitive than those for the short term. The longer-term projections or expectations are even less concrete than those outlined for the short- and medium-terms. Resource availability is a significant factor that is almost totally impossible to foresee. Many industry participants feel the long-term resource situation will be determined by environmental changes that might favour groundfish and pelagics over shellfish.

The overall world demand of seafood will continue to grow, while on the supply side aquaculture will have to provide more of the total requirement. The processing competition from low-cost economies is not expected to disappear. However, growing domestic demand in China could result in an upward pressure on the world prices of fish products but a decrease in competition from China in other markets. This might offer some long-term prospects for current higher-cost producers.

There are concerns about such factors as the current income levels of plant workers, the growing difficulties in attracting labour and an anticipated shortage of workers in the short- to medium-term. The processing labour force is ageing, as is the provincial population. There are relatively more older and more younger workers in the processing labour force than in the general working population. The 35-54 age group includes the most established part of the workforce. Therefore, the greatest labour force challenges will occur as this age group matures. The greatest difficulties for the labour supply will appear 10-15 years from now and beyond. In addition to declining, the provincial population is migrating within the province. This will create additional challenges for government policy and industry operations both now and in the future.

More young people are becoming less content to live in rural communities; thereby reducing the available labour supply in some processing areas. The younger generation is less satisfied with short-term employment and meagre EI benefits in the off-season. As well, the overall opportunities and services available in larger centres are making rural lifestyles less attractive. Governments must focus its economic development efforts on areas where people are likely to remain. Small communities can survive but they have to be anchored around larger centres that provide a range of commercial, educational, health and other social services and employment opportunities.

By 2001, the number of people working in fish processing plants had declined to a little over one-half of the number employed prior to 1990. In current dollars, the average plant income has increased 18 percent from $8,660 in 1990 to $10,220 in 2001. This ranges from a low of $6,100 in the Baie Verte Peninsula area to $16,152 on the western side of the Burin Peninsula. However, in real terms (constant $1997), plant workers' average income has declined four percent from $10,059 in 1990 to $9,660 in 2001. More significantly, relatively more processing workers earn lower incomes than do other non-fishing sector workers. Approximately 89 percent of plant workers have average total incomes from all sources of less that $30,000 per year compared with 75% of harvesters and 63 percent of non-fishing sector workers. In addition, fish processing workers now work longer on average than a decade ago.

The following are the major unavoidable conclusions on the position of plant workers in the present industry: They have not benefited from the returns generated by the post-moratoria fisheries to the same extent as have other industry participants. Their incomes are still behind pre-1992 levels in real dollar terms and more of them earn less than $15,000 than the general working population. Today's industry is much less labour intensive; and likely to get even more so to compete globally. Consequently, there are no quick fixes to the income problems of fish processing workers generally.

These labour force problems must be dealt with by industry as much as by government. The latter can take policy initiatives that can help offset some of the implications of a declining, ageing and relocating population in terms of where fish processing will be most viable. The industry efforts must be directed to finding ways and means to make fish processing employment more attractive to present and future workers. The most obvious of these initiatives are those that could increase the duration of employment either by adopting industry-wide measures to reduce the derby nature of processing activities, developing more processed products and undertaking training programs to ensure that future workers have the qualifications necessary to find meaningful work in this industry.

The Commission identified issues related to work content in crab plants as arising from the increasingly short operating season, lower degrees of processing and a carryover of workforces from groundfish processing. Some possible ways to lengthen the working season of crab plant workers include: reducing the numbers of workers at plants, consolidating plant operations, slowing the race to catch and process, and increasing the level of processing of crab. These are all issues that cannot be quickly solved, but the new approach to managing the fish processing sector contains measures that will address them now and over a period of time. As an immediate measure, I recommend that at least 10 percent of plant output should be processed beyond the industrial pack stage unless it can be clearly demonstrated that this is not financially viable.

I can only conclude that the essence of the exporting for reprocessing issue is that demand is high for sections, the U.S. market for Newfoundland and Labrador snow crabmeat has declined and stagnated while the total Japanese demand has not increased. Japanese imports from North America have always been sections from which buyers produce the crabmeat and other consumer products required for their domestic markets. No North American producer has ever supplied snow crabmeat to this market. It is likely that crab exports will continue to consist primarily of sections with the proportion destined for reprocessing being determined by overall market factors. Any changes in export levels into other reprocessing locations will not affect the overall total but only the distribution of the activity. I recommend that the Department keep more of a watching brief on this activity by instituting a post-season situation report on this type of activity.

Industry employees expressed concerns that the overall quality of crab products may be slipping again in recent years as happened in the mid-1990s. Conversely, company officials did not feel this was happening because no processor can afford the revenue loss from significant product rejections. The crab market is now a seller's rather than a buyer's market. In such a situation, buyers often expand their quality specifications to accept more marginal product. It is not possible to independently verify these concerns. However, some dissatisfaction with quality of certain packs was reported again this year in the early Summer. I propose that the Department monitor such troublesome developments more closely and with the objective of heading them off so that a repeat of past events in crab (and capelin) are prevented.

The issue of disparities in ex-vessel prices of snow crab in Newfoundland and Labrador and the rest of the Atlantic has persisted over the past decade. While the gap was narrowing in recent years in comparison to the Maritimes and Quebec, it is impossible to totally quantify the extent of it. Moreover, the precise causes of the remaining price disparities cannot be determined. Many factors influence the final price level in different locations. The only definite conclusion I can make is the greatest disparity seems to have been, and continues to be, with the production area acknowledged as having the "best" crab in terms of overall size and appearance (southern Gulf of St. Lawrence - 4T).

The Quality Assurance Program (QAP) was introduced by the Department of Fisheries and Aquaculture in 1996 in response to concerns raised by the marketplace about product quality. The program is designed to improve the quality of fish landed, transported, processed and marketed. I found that under QAP, industry and government have made substantial progress in improving product quality over the past five years. This progress has resulted in a substantial increase in product value and the reputation of the industry has improved substantially.

Additional value can still be realized from better handling, transportation and holding practices. I make a number of recommendations to continue and improve this program, including upgrading its overall administration and management, as well as modernizing the handling standards and practices that are required of industry.

Very few industry participants have expressed any significant approval of recent licensing actions and indicate even less awareness of individual policies governing licensing decisions. The general view is that there have been no consistent or explicit policy statements or specific criteria used for licensing actions. The Core and Non-core plant licence approach has not met the original intent of that policy measure. The issuing of licences for additional processing operations for traditional species has taken place when the general understanding was that limited entry licensing was in effect. New species processing licences (e.g. crab and shrimp) have been issued with no apparent or obvious consideration of the level of the additional, total, or average, resource availability that should exist. Equally, the assessment criteria and the approval process for licensing proposals are vague, as is the extent to which formal and rigorous evaluations are conducted in advance of Ministerial decisions. My overall examination of the various policy objectives and the tools or measures used to administer the provincial processing plant licensing program indicated the need for considerable change in approach. The policy criteria and various management measures that were intended to bring increased stability to the processing sector have not done so.

I did detect widespread appreciation and support for the concept of "strategic plants". Most industry members considered it sufficient if this concept was an implicit policy criterion used to direct all licensing actions in support of generally recognized strategic plant activities. I have recommended it become a part of future licensing policy to address concerns about regional balance or distribution of processing, but also to adjust to the emerging difficulties arising from population changes in the rural areas of this province.

I find the definitions of, or distinction between, primary or industrial level, secondary and value-added processing are not clear to most industry participants or observers. Definitions of primary processing usually involve converting raw material into a commodity-level product that is bulk packaged and not consumer-ready. Primary processing is often synonymous with minimal processing while further processing really includes both secondary and value-added processing. When the desired result is to make more effective use of fish resources, all forms of further processing can accomplish this goal. Significant product value can be added to a fish commodity without substantially altering its form, taste or texture. There are still quite profitable markets for most of our traditional primary products and it does take time and other financial resources to develop markets for secondary processed and value-added products. Government must continue to foster development of further processing through its various support programs, and wherever possible, provide non-monetary incentives in its regulatory framework for the processing sector. I recommend that the current policy of having no licensing impediment for secondary processing be maintained.

The concept of allocating individual raw material or input shares to processing facilities is relatively new. It means processing licence holders would be authorized or entitled to acquire up to a specified amount of available raw material for processing when and as the operator decides. That allocation or share would be a raw material purchasing entitlement expressed as a percent of all available quotas of a given species, or of each separate quota of each species. These would not be catch quotas or allocations of fish in the water, these are granted only to licensed harvesters by the federal, not the provincial, government. The share or entitlement would be reserved or protected for each licensed processor to exclusion of others. In essence, this system would eliminate races to acquire raw material that some feel are as equally detrimental to processing operations as competitive fisheries are to harvesters.

I could find no common ground between the divergent industry views on this concept because of the entrenched nature of them, the present state of industry relations and the wide scope of the policy review that had to be conducted. Companies see no good reasons why the proposed sharing arrangements should not be put in place at this time, nor that the concurrence of other industry participants should be a necessary precondition. Harvesters and plant workers express almost complete scepticism and distrust about processors' motives and their claimed beneficial effects of raw material sharing. Quite simply, companies have not convinced them that any of the merits and benefits being claimed for individual raw material shares are real or will even happen. In fact, the doubting and opposition has grown over the course of this year.

This concept is new and has not been implemented in any fish processing industry to this time. Some of the comparisons being made to IQs in the harvesting sector may indeed be valid. Whether the claimed improved efficiency results will be similar is really an unknown and is probably behind most of the opposition being expressed. Fish processing and harvesting are different economic activities and would not necessarily produce the same results from an individual sharing system. However, no other substantive alternatives were suggested to the Commission other then a suggestion that annual production limitations on each licence would achieve the same intended results of more orderly operations without increasing corporate control or lessening competition. A related possibility was weekly limits on both catches and production.

The basis of the regulatory framework for management of the fish processing sector is the Fish Inspection Act and regulations. However, the framework also includes the activities, operations and associated processes that are used to implement the provisions of the Act and regulations. Included here are the direct industry management actions aimed at controlling the numbers, activities, capabilities and locations of fish processing operations and the attaching of certain terms and conditions to licences to implement particular policies. Also involved is the more quality-oriented fish inspection requirements that all who land, transport, store and process fish are required to observe. The latter also involves surveillance and enforcement activities that are necessary to ensure compliance with the overall rules of conduct imposed on licensed operators. The overall regulatory framework is reasonably adequate in terms of supporting the measures used to manage the fish processing sector. I have made several recommendations to further improve some aspects, including regulation making and enforcement.

A renewed effort is clearly needed to address the problems still plaguing the processing sector. Many of the deficiencies are not necessarily any different now from what they were 10, 20 or even 50 years ago. The species mix has changed, harvesting and processing capabilities are more sophisticated, and gross value of output is at an all-time high. However, the basic problems of the sector remain rooted in excess capacity with the associated results of seasonal operations, unsatisfactory levels of income, instability and volatility, and less-than-optimum total returns from seafood production.

To address many of the problems identified, and to improve the overall management of the fish processing sector, I have recommended major changes in the policy measures that are used. I propose a rewording of the policy objectives to reflect the need to create a more stable operating environment that will allow the sector to make a greater contribution to the well-being of all participants. I propose replacing the Core/Non-core licensing approach with one that is based on species recently processed. The use of resource-threshold criteria is recommended to provide a quantitative basis to deciding licensing proposals. New transfer criteria are recommended to reflect more of a strategic processing area approach to licensing decisions and to react to the changing population base. Annual processing plans are proposed as part of the annual licensing process as well as annual reporting of the shareholders of licensed operations. I recommend the creation of an arms-length board to publicly administer licensing decisions against policies established by the Minister and the Department. I recommend the establishment of an advisory committee to the Department to improve the input of industry in policy making. I also recommend a trial period for the use of individual raw material sharing with an independent Review and Evaluation Committee to oversee the testing of this concept.

CH. 1 INTRODUCTION

This is the final report of the Commission established by the Minister of Fisheries and Aquaculture to review fish processing policy and several related matters. The Commission was a one person arrangement so that the proper reference may be "Commissioner". However, I will use the term "Commission" interchangeably with the first person, depending on which seems more appropriate in any specific context. In any event, final conclusions, definitive statements or formal recommendations are mine alone.

The Terms of Reference for this review covered eight separate items or issues. The details of the Terms of Reference are contained in Appendix 1, and referred to very briefly at the beginning of each Chapter dealing with a specific item. Item number 8 in the Scope of Work is included with licensing issues in Chapters 6 and 9. As Commissioner, I was provided with a small but extremely capable support staff, office space and an operating budget.

Shortly after the Commission began work on September 2nd all entities and groups with any interest in the review including active processing licence holders, industry associations, all fishery unions, economic development boards, the Federation of Municipalities, Aboriginal Associations and others were written to formally advise them that an opportunity would be given for a meeting and/or a formal submission. Those requesting meetings were accommodated where they preferred, which in several instances were in local areas when the Commission travelled to different parts of the province. In that case, the Commission requested the executive of individual plant worker locals and harvester committee representatives to meet in various locations. In total, over 55 meetings were held with more than 200 individuals in some 25 locations. People attending meetings came from 100 different communities. A listing of all meetings held is in Appendix 2. As well, 16 written submissions were received from groups, companies, individuals or other entities. These are listed in Appendix 3.

The Commission also arranged for four external studies of specific topics on which I felt a second and/or an expert opinion was valuable. These areas of external work were the Quality Assurance Program, the likely business and markets prospects facing the industry, the extent and causes of disparities in crab prices and the economics of scale and location in fish processing. Commission staff also assembled a huge quantity and variety of statistical and other information on fish processing and related matters that were invaluable in helping me understand the many issues brought to the Commission.

From all these sources, but most especially the consultative meetings, came an enormous spectrum of views, opinions, information and argumentation that helped shape the final views contained in this report. Industry participants, but also others, expressed a wide variety of views, some of them on matters outside the Terms of Reference and some that I judged, in the final analysis, not to contribute to resolution of issues before me. Even so, there was a fair degree of commonality on a considerable number of sector management issues. The areas where industry participants tended to have divergent views were mostly ones related directly or indirectly to collective bargaining. There were very similar views expressed by all industry members on what is needed to be done in terms of licensing measures, a little less so on quality related matters and none on the concept of individual raw material shares for processors.

The next Chapter will review the main developments in the province's seafood processing industry in the last decade or so. It will also examine some of the likely prospects facing the industry over the short- to medium-term in such areas as business and market outlooks and the effects of developments elsewhere in the global seafood sector. Chapter 3 will cover the demographics and related economic aspects of the province's fish processing labour force. This will be done in the context of the effect population changes are having on that labour force now and in the immediate future as well as the many-sided issue of incomes in that sector.

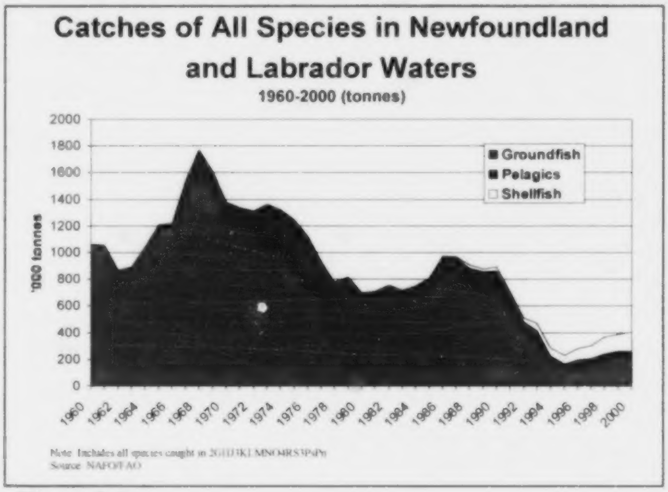
The specific crab sector issues that were referred to the Commission will be examined in Chapter 4. These include the issue of work content in plants, price disparities, export and reprocessing of sections and processing standards of crab products. Conclusions will be drawn where possible and recommendations likewise given. The Quality Assurance Program will be reviewed in Chapter 5 in the light of industry comments and the external review conducted for the Commission. Some recommendations for future activities and changes will be given there as well. Chapter 6 will examine the various issues and challenges of licensing and management of the fish processing sector that now faces the industry and the government. The overall issue of individual raw material shares in the processing sector will be addressed in Chapter 7 from a theoretical perspective and in terms of the positions currently taken by industry participants. A review and discussion of the regulatory framework that is in place for managing the processing sector will be found in Chapter 8 as well as some recommendations for improvements. Chapter 9 will outline a number of measures that are recommended as a new approach for managing the fish processing sector. These will include licensing and associated other measures and actions. Finally, the last Chapter will contain a summary of major findings and conclusions and will repeat the recommendations made throughout this Review Report.

The Report is the result of a policy review of the province's management of the fish processing sector. It is, then, an exercise in policy development in that the results are proposals for management measures the province may adopt in respect of its jurisdictional responsibility for this activity. Policy development is not an exact or a completely quantitative science, if it is science at all. In the final analysis, it has to produce actions or measures that can be adopted and implemented. To do otherwise, such as propose unrealistic or totally opposed approaches is to effectively fail. It also does not mean satisfying all interests, to do so often means making no changes to the status quo. In the end, policy development has to have a healthy dose of pragmatism. Change in the fishery takes place more by evolution than revolution; what is unacceptable today becomes desirable tomorrow or the next day. Management of this industry in all its aspects is often the "art of the impossible".

Therefore, this Review Report is not a quantitative economic or financial analysis of the situation in the processing sector. Rather, it assesses a variety of internal and external force fields to determine the best courses of action that can contribute to essentially qualitative objectives. In this respect, it involves some implicit value judgements as to the extent to which conflicting desires of interest groups can be accommodated. Consequently, some will not see their position or philosophical approach reflected in my final conclusions or recommendations. Some such matters are not part of the final approach proposed because they had only a restricted constituency, were unrelated to the Commission's Terms of Reference or represented a very narrow special interest.

CH. 2 RECENT INDUSTRY DEVELOPMENTS AND FUTURE PROSPECTS

It is over a decade since the first groundfish moratorium was imposed on the Northern Cod stock. While the various changes that have since occurred in the province's fishing industry are generally widely known, some of the more pertinent details may not be as well understood. This Chapter will outline the most significant developments that underlie the current situation of the processing sector as well as offer some broad indications of the short- to medium-term prospects facing it. This overview will put most, if not all, of the present industry difficulties in a context where some rational and objective assessment of future management options can take place in succeeding Chapters. It should also create a better appreciation of the range of possible solutions that the provincial government can pursue through the regulatory jurisdiction of the Minister of Fisheries and Aquaculture.



Note: Includes all species caught in 2GHJ3KLMNO4RS3PsPn
Source: NAFO/FAO

Figure 2.1

2.1 CHANGES OVER THE LAST DECADE

Since the various groundfish moratoria, very little recovery has been evident in the coastal and more distant fish stocks that were closed. The 3Ps cod stock is the only such coastal stock that has experienced a continued reopening. The other two coastal cod stocks were reopened for a few years under TACs that were but a fraction of their previous levels. Other than turbot, no traditional northern groundfish stock has been able to support a commercial fishery since the early 1990s. Commercial catches have been permitted from only one of the Grand Banks' trans-boundary groundfish stocks (Yellowtail Flounder). Insignificant redfish fisheries now occur on the Western Grand Banks, off the Southwest Coast and in the southern Gulf of St. Lawrence. Capelin stocks have also remained depressed in all traditional fishing areas. Figure 2.1 gives a picture of how catches have changed in the past two decades.

The increasing abundance of snow crab and Northern Shrimp that occurred in these finfish vacuums provided a fortuitous basis for transformation of the fishing industry. In a little over five years after the Northern Cod moratorium, a fishing economy based mostly on two shellfish species replaced the largely groundfish dependent one. Immediately prior to 1991/92, the fishing industry landed and processed over 500,000 tons of fish annually worth about $260 million at the dock. This annual catch consisted of just over 60 percent groundfish, 30 percent pelagics and only about 7 percent shellfish. By 2002, a landed volume of about half that amount fetched over double the pre-moratoria landed value. Less than a quarter (22%) of the current quantity is groundfish, less than one-fifth (19%) pelagics while shellfish had risen to almost 60 percent.

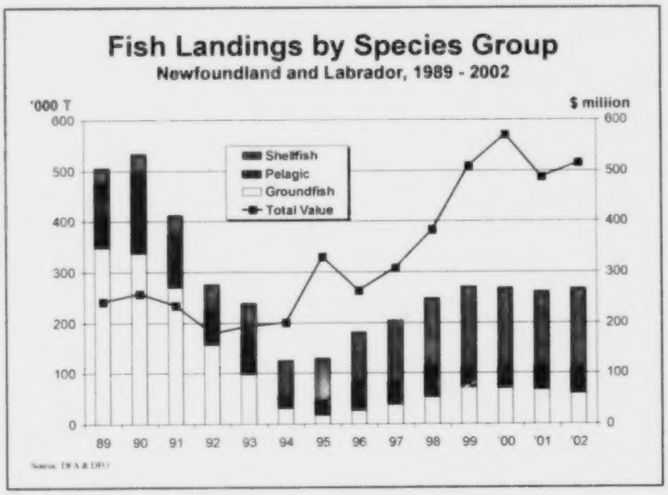


Figure 2.2

The new species balance is even more pronounced in terms of landed value. Crab and shrimp now account for about 75% of the total earnings from harvesting, almost seven percent more than the three top species (cod, crab and capelin) did prior to the 1990s.

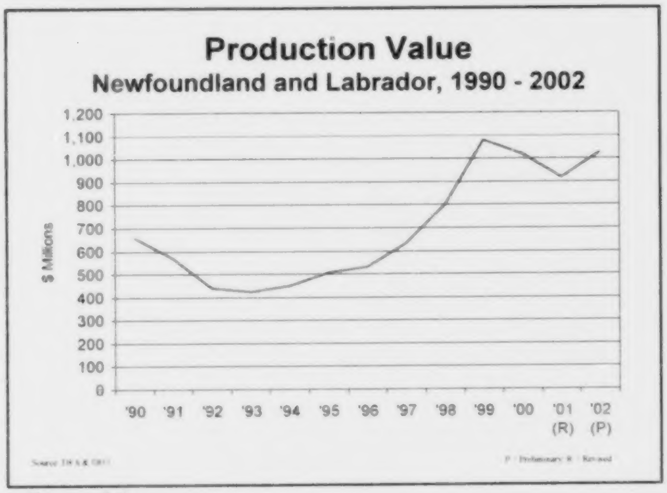


Figure 2.3

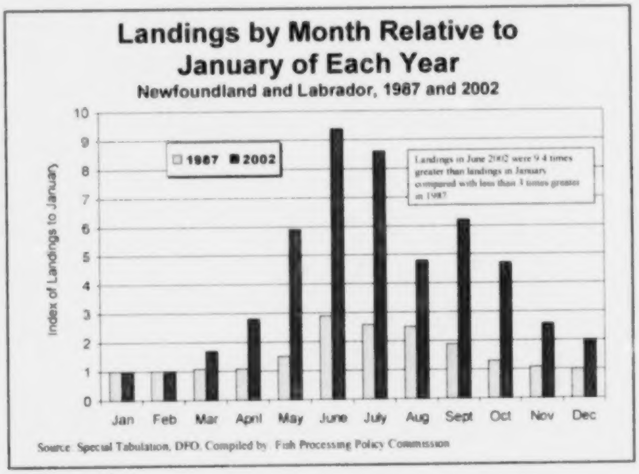
In three of the last four years, the final value of fisheries output in the province has exceeded $1 billion because of the higher unit-valued shellfish products. The final product value has increased less over the last decade or so than has the landed value. This implies that processing has added proportionately less value to final product than previously; and that the harvesting sector now appropriates a higher proportion of industry earnings than in the groundfish-dominated period.

As the species base of the industry changed, so did the allocation position and shares of landings of the independently owned fleet. Prior to the groundfish declines, the province's fleet of less than 65 ft. vessels accounted for 59 percent of total landed volume and 58 percent of landed value. From 1997-2002, these fleets have landed an annual average 68 percent of the volume and 70 percent of the value of the province's commercial fish catch. This higher level of annual gross earnings for these fleets is some 140 percent above pre-moratoria (1989) revenues. However, the distribution of these new levels of incomes has also changed by fleet segment and geographical areas. Generally, the larger vessel classes in all areas, except the West Coast (4R3Pn), now earn levels of gross incomes several times those of a decade ago. In the smaller open boat fleets, earnings have improved in most areas but not to the same degree as experienced by the 35-65 ft. classes.

The increasing allocations of crab and shrimp to these fleets as these two species bloomed in the latter half of the 1990s has been the main driver of these higher incomes. Except for two minor exceptions, all snow crab allocations are made to Core licence holders in the under 65 ft. category. Most of the increases in Northern Shrimp quotas since 1996 have also gone to Core operators in the 45-65 ft. fleets.

The relative increase in landings of the inshore sector has dramatically increased the seasonality of landings throughout the year. Prior to the moratoria, a greater proportion of total landings was spread throughout the season. Only the offshore sector provided raw material to integrated plants on a year-round basis. In 1987, the peak landings were about 3 times the level of landings in January. By 2002, the changed landing pattern of the industry produced peak landings in June more than nine times the level of January. This dramatic increase in seasonality has had implications for the duration of employment for processing workers and for utilization of processing capacity.

While earnings of fish harvesters have generally risen to levels never seen before, incomes of processing workers are barely back to pre-moratoria levels. There are also fewer processing workers now than in the groundfish dominant days. The numbers of individuals in harvesting are much the same as in the pre-1992 years. Similar to the primary catching sector, the levels of incomes in the processing sector are variable between geographical areas and types of processing plants.



Landings in June 2002 were 9.4 times greater than landings in January compared with less than 3 times greater in 1987

Source: Special Tabulation, DFO. Compiled by: Fish Processing Policy Commission

Figure 2.4

Only four year-round plants now remain; there are only three other plants now supplied by offshore trawlers and the remainder consists of a mixture of crab, shrimp and/or other species operations. All, except the few year-round plants, provide seasonal work ranging from less than 10 weeks at the lower end to 20-30 at the upper end of the scale. Earnings at plants in former inshore groundfish areas, in some of the newer and smaller crab operations, and where crab or shrimp operations have not arisen, tend to be at the low end of the income scale.

The processing sector has changed significantly over the last decade in several ways. There are now 122 active primary processing facilities compared to 221 in 1990. Many of the former groundfish plants have closed permanently (e.g. Trepassey) and others have been reopened and re-tooled to process different species in a completely different manner. The major processing operations are now less labour-intensive and utilize the latest technology to compete in today's global marketplace. One consequence of this is that employment levels in processing facilities are now only 58 percent of what they were in 1990.

A very rough approximation of the distribution of wealth from the current provincial fishing industry can be gleaned from the data on landed and product values and incomes reported by tax filers in fish harvesting and processing shown in Table 2.1.

Table 2.1
Profile of the Fishing Industry
1990 and Most Recent Year

Item	1990	Most Recent Year	Percent Change
Landed Value	$258 M	$515 M (2002)	99%
Production Value	$660 M	$1,027 M (2002)	56%
Number of Processing Workers	25,160	14,770 (2001)	-41%
Total Plant Income	$218 M	$151 M (2001)	-31%
Average Plant Income	$8,661	$10,220 (2001)	18%
Total Income (All Sources)	$406 M	$291 M (2001)	-28%
Average Total Income (All Sources)	$16,140	$19,701 (2001)	22%
Number of Harvesters	14,750	13,440 (2001)	-9%
Net Fishing Income	$63 M	$159 M (2001)	152%
Average Net Fishing Income	$4,287	$11,831 (2001)	176%
Total Income (All sources)	$215 M	$336 M (2001)	56%
Average Total Income (All sources)	$14,572	$25,000 (2001)	72%
Number of Active Primary Processing Facilities	221	122 (2003)	-45%

Source: DFO; DFA; Special Tabulation, Statistics Canada, Newfoundland and Labrador Statistics Agency; Fish Processing Policy Review Commission
Note: M – millions

There has been a clear shift in the level of total returns to the harvesting sector, which now primarily consists of vessels operated by individual licence holders. The relative amount of value-added in the processing sector is less than it was a decade ago, indicative of an increased share of final product or market value being appropriated by harvesting operations and less being received by processing labour, capital and other inputs. This assessment appears to confirm several broadly based views that currently exist around the fishing industry:

- Competition for raw material, especially crab, has benefited harvesters (and especially the larger vessel operators) most of all;
- The production of more and more output is highly mechanized and consists of industrial or institutional packs that are not labour intensive;

- Returns to processing labour have lagged behind the overall increase in value of final output and more especially that in landed value;
- Final margins on many finished products may have shrunk.

The processing sector today is facing a period of instability after some six years of relatively smooth operations that were achieved under the Final Offer Selection Process model of collective bargaining. A high level of distrust prevails in the industry with all parties doubting the intentions and motives of the others. Companies have complained to the Commission about the harvesters being in the driver's seat with IQs and their ensuing strength in collective bargaining. They feel they are being constantly pressured to pay more or provide additional services in order to acquire and retain raw material. Harvesters also complain they are not receiving their deserved returns because of the price-to-market formula and that they do not know the real returns achieved by processors. They and plant workers distrust all claims processors make for new or changed arrangements such as individual raw material sharing.

All of these current antagonistic positions being taken by participants in the industry appear to stem from a series of frustrations that have not been adequately resolved. Some of these positions are driven by desires of harvesters to retain what has been gained in recent years, by intense competition amongst processors driven by levels of processing capacity and, at best, a stable or declining total supply of raw material, and by a labour force increasingly stressed by short and irregular working seasons and lagging income. Later Chapters will address these again where specific items in the Commission's Terms of Reference are examined in more detail.

However, not all stresses now found in the industry are the result of new problems. Indeed, many of the issues faced by the industry today have been features of it throughout most of the last century. Major studies of the fishing industry, from the 1933 Royal Commission (Amulree) to the Kirby Task Force report of the 1980s, have identified similar systemic problems that prevented the industry from reaching its full potential. These have included inadequate marketing, poor market returns, improper care and handling of fish, excess processing capacity and too many people dependent on the industry. The fact that many of the same structural problems have not been resolved after decades suggests that a need for change is a permanent feature of this industry.

Furthermore, the resource and market fluctuations faced by the industry are generally beyond its control. Harvesters and processors must have the financial strength to survive these recurring challenges. This requires that processors and harvesters both operate in a viable manner and together extract the greatest possible value from the resource. Many hold the view that because the fishery has been used as a social policy instrument to provide employment for the maximum number of people, widespread financial viability has never been attained. There is also a prevailing view in some quarters that increased secondary, further and/or value-added production is the answer to many of the current industry problems.

In general terms, most of the province's fishing industry is now dependent on a narrow range of staple species not experienced since the salt fish era of the first half of the last century. Active licensed processing capacity generates intense competition for the core species, contributes to compressed fishing and processing seasons for crab and shrimp, causes a volume-driven processing activity for the two main species, and does not create conditions supportive of increasing value-added or secondary processing. There are numerous and conflicting points of view on priorities and objectives for management of the processing sector. There are equally divergent views on the causes of the current industry troubles. All of these culminate in conflicting positions on the specific actions government should take in its jurisdiction of the processing sector. Finally, the industry is characterised by current high levels of mistrust on all sides that could impair the rational discussions that need to take place between parties in the near future.

2.2 OUTLOOKS FOR THE FISH PROCESSING SECTOR

The Commission had an analysis prepared on the "Future Scenarios for the Newfoundland and Labrador Fish Processing Industry" to assist in identifying the likely circumstances in which fish processing policy will have to be formulated in the short- to medium-term. Such an overview of likely future events is useful in determining the range of policy options or management measures that are available to government. This is especially true of the commercial conditions that determine the milieu in which the processing sector operates but which cannot be altered by the government's authorities to manage it. The following overview of likely future industry scenarios is based on this expert external analysis and gives some context to future management options for this sector.

A variety of major external factors directly and indirectly affects the economic and financial condition and potential of the fish processing sector. These include various commercial developments in the global seafood industry, changes in resource availability and industry activities in competing regions, changes in market demand for specific seafood products and changes in the local resource situation. These factors are beyond the powers of the provincial industry, the Department and Minister to directly and immediately control. They must be taken as givens when assessing what is possible to achieve in terms of short- or medium-term objectives or expectations from management actions. Newfoundland and Labrador has the single largest snow crab and coldwater shrimp resources in the world and, in 2001, harvested 25.2 percent of all commercial marine fish species in Canada. However, on a worldwide basis, the province only accounts for 0.3 percent of the total commercial landings of all marine fish species.

2.2.1 Structural Changes in the Global Seafood Industry

There are a number of important global fisheries trends that affect the outlook for processing in Newfoundland and Labrador, but that are not specific to the individual species and markets. These are such factors as significant recent developments in global seafood markets, emerging industrial sectors, and reorganization of purchasing and distribution sector, etc. These will be outlined in the following sections.

Loss of Market Share by Japan: Traditionally, Japan has been the second most important market for Newfoundland and Labrador after the U.S. For many years, it was the primary market for snow crab sections. A major new trend, across a variety of species, is a decline in the relative strength of the Japanese market. From 1991 to 2001, Japan's share of world seafood imports decreased from 28% to 23%. During this same period, the total U.S. share of global seafood imports increased from 14% to 17%.

Japan no longer sets the price for a number of important commodities, but has been forced to accept prices set in other markets. For example, since 2000, Japanese buyers had to consistently bid against U.S. buyers to get crab, and have had to pay higher prices. They then are forced to sell crab at a higher cost into a weak internal market. The Japanese have sought alternative sources of crab (such as Russia and Greenland), reduced their quality specifications and tried to sell smaller crab and less expensive retail packs.

While the Japanese will continue to be very important customers for Newfoundland and Labrador processors, they will not be the primary customers for snow crab. The future of the snow crab market is now tied more to market demand in the U.S. than in Japan.

Growth in Chinese Manufacturing and Consumption: A second major global trend that will affect Newfoundland and Labrador processors is the growth of China as both a seafood manufacturing and consuming area. The growth of seafood manufacturing in China is affecting more than just snow crab. Production of practically all manufactured seafood items, from groundfish blocks to cooked shrimp to crabmeat, is rapidly expanding in China.

The expansion is being driven by two factors: the availability of capital in China to open manufacturing plants, and a very strong labour cost advantage over most seafood processing companies in Europe and North America. In terms of snow crab, Chinese labour costs, as reported by companies that have researched these costs, are said to be 88% less than in Newfoundland and Labrador.

In addition, the Chinese are developing a strong middle class that is very large in terms of absolute numbers. These consumers are creating a home market for many seafood items that have been exported in the past. This makes Chinese companies more competitive bidders for product because they can sell into both the domestic and export markets. Overall, growing Chinese demand for seafood will place upward pressure on global seafood prices especially on commodities that are in high demand in China.

"Commoditization" of Aquaculture Products: The growing commoditization of aquaculture products is another very significant trend for Newfoundland and Labrador as a producing region. Specifically, as aquaculture producers found ways to decrease their costs and rapidly expand production, wild capture fisheries for salmon and warm-water shrimp were devastated. These products were similar and sold to similar customers. As a result, any Newfoundland and Labrador capture fishery that might face aquaculture competition has to be considered vulnerable.

Consolidation of Global Seafood Buyers: The consolidation taking place among seafood buyers is an outgrowth of the consolidation trend among large food retailers, and also within the foodservice industry.

This retail trend is most advanced in the U.S. and is occurring in Europe as well. This means a single large seafood buyer is now responsible for purchasing what had been purchased by as many as five or six independent retail chains. This means that retail sales of crab and shrimp are controlled by fewer and fewer buyers. This gives the largest buyers significant pricing power, and when they discontinue a product or find it is no longer cost effective, they can significantly affect the province's processing sector.

This consolidation is also taking place on the foodservice side as the largest distributors use their buying power to gain advantages over producers. Generally, a company will develop relationships with one or two primary suppliers for a given commodity, and then encourage that supplier to pack under their specifications. When this happens, a large portion of a processor's business can come to depend on a single customer, again with ramifications for pricing. A similar trend towards foodservice consolidation is occurring in Europe as well, but it is not as far advanced as in the U.S. With the increased level of consolidation taking place among buyers, Newfoundland and Labrador producers could be more vulnerable to radical customer shifts in demand.

Consolidation of Global Seafood Producers: The consolidation of seafood buyers has triggered a similar trend of consolidation among seafood producers. Many of the largest global seafood companies have been aggressively expanding by either buying other producers or entering into agreements that expand their marketing coverage. This allows larger companies to offer the biggest buyers more stability and resource continuity. It also protects their own profitability and reduces risk by spreading sales among a larger number of stable products.

Processing companies in Newfoundland and Labrador that want to remain competitive over a wide range of products will have to participate in this trend towards greater consolidation. Processors, who have to depend on a single product, such as crab or shrimp, may find their ability to maximize profits is compromised. Future marketing success in such cases will have to be based on a reputation for consistent high quality.

Continued Growth in Consumer Demand for Seafood: A very positive trend is the increasing global demand for seafood including increasing consumer demand in both the U.S. and Europe and continued high demand in Japan. The increasing domestic demand for seafood in China has the potential for it to become a bigger market for coldwater shrimp.

When Newfoundland and Labrador producers have the right products, the expansion of consumer demand can add considerable value to the fishery. A clear example is the expansion of crab section production because of growing demand in the U.S. The lack of needed growth in coldwater shrimp production because of stagnant demand in the U.S. and globally, is an example of the opposite situation.

However, consumers remain sensitive to seafood prices. There will be strong and continuing demand for appropriately priced products, and when supplies are limited, prices will only rise to the point consumers consider acceptable. Pricing beyond that level will reduce or eliminate demand.

The overall continued growth in consumer demand for seafood is a positive trend for the major Newfoundland and Labrador products of shrimp, crab and cod. There is room to expand consumption of all three products over both the medium and long term. This growth in consumer demand will mean a steady trend towards increasing real value for seafood products exported from this province.

Stable Global Wild Harvests, Increased Aquaculture Output: Most of the future increase in global seafood consumption will come from aquaculture species. Recent reports suggest that in about 15 years more than 40 percent of the global fish consumption will come from aquaculture. This means a doubling in aquaculture production from 28.6 million tonnes in 1997 to 53.6 million tonnes in 2020. The growth of aquaculture will change the relative importance between aquaculture and wild species. For Newfoundland and Labrador to remain one of the more important fish producing regions of the world, processors will eventually need access to aquaculture production to be competitive with other seafood producers. Growth of aquaculture in the province could provide an important support for the processing sector, as it can expand the resource base available.

2.2.2 Direct External Influences

Several factors that are more species specific will influence developments and possibilities in the province's seafood industry. These will have a bearing on the degree of success in production of the current major species available to the local industry.

Industrial Changes in Other Producing Areas: The first such external factor is the level of resource availability in other fishing areas and developments in fish processing activities in other countries. The financial health and commercial potential of the province's fish processing operations can be directly affected by rises or declines in the resource situations in competing fishing countries. The two current significant examples are the competition from Alaskan and Russian crab catches and general worldwide production of shrimp. Currently, the first are relatively low and thus create a positive demand and price position for the local crab industry. The second continues at high levels and causes a less favourable set of price and market demand conditions for the shrimp sector.

The rise of low-cost processing in several Asian countries, including China, Thailand and Vietnam, creates a difficult competitive situation for the local production of several traditional types of output. This includes crabmeat and most types of frozen groundfish products. The cost level at which these new processing competitors can place product on the market is changing the form and range of products that local industry can continue to produce competitively. Unless there is some offsetting factor, such as sale of an expensive product in a specialized market, or unique requirements for transporting or processing, the Chinese labour cost advantage will be difficult, but not impossible to overcome.

Changing Consumer Demand for Seafood Products: The second important and largely uncontrollable external factor is the changing consumer demand for individual seafood products. This manifests itself in two ways; one is the type of species and product forms that affect the market demand for the province's output. The recent general growth in demand for crab in the U.S. market is in product forms requiring relatively low levels of processing. A similar high level of demand for coldwater shrimp has not yet developed in that same market. Acceptance of other whitefish, such as catfish and tilapia, has reduced the place of cod in the traditional whitefish menus uses.

Changes in Local Resource Availability: The third significant external factor is change in local resource availability. The crab and shrimp abundance may or may not remain at these levels in the short to medium term. On the other hand, the declines in groundfish, especially cod, means the recovery of the markets for such species may indeed be a long-term effort. There is a certain level of resource uncertainty that always will exist, even outside the realm of significant resource shifts such as the groundfish decline and the bloom of shellfish. The setting of management policies and measures for this sector has to recognize that any given resource situation always has inherent processing capacity limitations.

2.3 SOME LIKELY PROSPECTS FOR THE INDUSTRY

The following outline of likely prospects for the processing industry is based on the external analysis prepared for the Commission. This incorporated worldwide trends in the harvesting, processing and marketing of seafood, the most likely local resource developments, and projections of all these by the provincial industry. This is, in the end, an industry-based focus centered on crab, shrimp and cod, which are the current bread and butter species for this sector.

The views of cod prospects closely typify the possibilities that can be attached to groundfish generally.

Industry consensus is that over the short term (2 years) there will be a slight to moderate decline in crab catches, and little change in the level of shrimp and groundfish landings from 2003 levels. World supply of crab is expected to remain low, supplies of shrimp to continue high and groundfish to show no particular trend. This implies that the overall business situation facing the provincial seafood industry in the short term is rather favourable.

The market for snow crab is expected to remain strong with prices remaining around current levels. An improving yen could spur increased demand from Japan and create a further favourable effect on market price. Conversely, a rising Canadian dollar will mean lower proceeds from sales to the U.S. Shrimp is not expected to create any significantly different market returns in the short term, as world supply is high and no product differentiation for coldwater shrimp has been yet developed in the U.S. market. The general short-term expectations for cod (and groundfish) returns are influenced mainly by the cost and quality competition from Chinese processing plants in the standard commodity lines of products.

General expectations in the medium term are for crab to undergo a decline in catches in the area of at least 30 percent, a lesser or no decline in shrimp catches, and no recovery in cod and groundfish generally. Projections or expectations about the medium-term business prospects were less definitive than those for the short term. In the case of crab, much will depend on the level of supply coming from the Alaskan and Russian fisheries and current demand not being decreased by high short-term market prices.

Future shrimp returns appear to depend primarily on whether market development initiatives are undertaken in the U.S. to increase the demand for coldwater shrimp. Not much improvement is expected from cod and groundfish products over the same period. The only likely increase in cod supplies might come from an increase in the 3Ps quota, but the generally pessimistic outlook for commodity cod products almost makes this an unwelcome occurrence. No significant net increases are likely in other groundfish returns in the medium term.

The longer-term projections or expectations are even less concrete that those outlined for the short and medium terms. Resource availability is a significant factor that is almost totally impossible to foresee. Many industry participants feel the future resource situation will be determined by environmental changes that might favour groundfish and pelagics over shellfish. On the demand side, the overall world demand of seafood will continue to grow, while on the supply side aquaculture will have to provide more of the total requirement. The processing competition from low cost economies is not expected to disappear. However, growing domestic demand in China could result in an upward pressure on the world prices of fish products but conversely, a decrease in competition from that source in other markets. This might offer some long-term prospects for current higher cost producers.

All of the above prognostications constitute a guide to likely events that is definitive in the short term, less so in the medium term and even less concrete in terms of long-run outcomes. Nonetheless, these various combinations of signals based on resource trends, market conditions and emerging international developments cannot be completely ignored. The outlooks described here are useful planning guidelines for the processing sector policy development issues that will be dealt with in later sections. These possible industry scenarios, when coupled with other factors such as the current levels of processing capabilities; the competitive forces within the local fishing industry; the community and social desires still expected of this industry; and, perceived and actual structural imbalances; constitute the immediate public policy challenges.

In essence, some of the trends described in this section may appear daunting in the longer term. However, in the immediate future the general business outlook for the local industry is good in relation to available market demand for its principal products. The longer-term outlook is more uncertain in that the effects of changes in the global seafood industry structure, possible resource declines and markets shifts are not clear. Groundfish outlooks will remain poor in the short term. While crab markets will be buoyant, resource declines are expected. Shrimp returns will continue to be marginal until reductions in operating costs and increased market returns can be achieved. Nonetheless, now is a good time to revise some processing sector policies while the opportunity for successful operations still exists.

CH. 3 DEMOGRAPHIC AND ECONOMIC ASPECTS OF THE FISH PROCESSING LABOUR FORCE

The Commission's Terms of Reference required an analysis of demographics and related aspects of the processing sector labour force. Government and industry are concerned about such factors as the current income levels of plant workers, the growing difficulties in attracting labour and an anticipated shortage of workers in the short to medium term. This section will analyse this overall situation from the perspective of matters raised in meetings and in the light of available data on the topic. The latter include some especially illustrative detailed age data and as well as income information from federal tax files and special tabulations of EI system data.

3.1 GENERAL OVERVIEW

In the Commission's consultations, plant workers, processing companies and harvesters indicated that many challenges face the fish processing sector labour force. Processing workers usually were concerned about the low number of hours worked, the resulting low income and difficulties with the reformed EI system. Many workers indicated that while wage rates are increasing, their annual incomes were actually falling due to less weeks of work. I will discuss specific proposals to address the income problems made by one group of processing workers at the end of this Chapter.

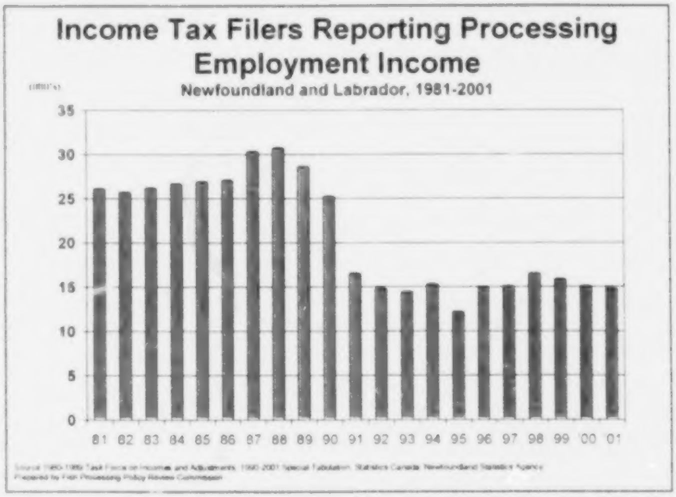


Figure 3.1

Plant owners have expressed concerns that the industry may be facing a labour shortage in the medium- to long-term due to their inability to attract new workers. They indicated the level of earned income now possible from fish processing was not competitive with other occupations.

As well, they believe more young people are becoming less content to live in rural communities; thereby reducing the available labour supply in some processing areas.

Both plant workers and owners told the Commission that the province has issued too many crab and shrimp licenses; and that the resulting excess capacity has diluted the amount of work available for plant workers. They indicated that even a modest decline in resource availability will likely result in a substantial hardship for workers. In that case, many workers will not qualify for EI benefits thereby greatly reducing the incomes of rural individuals and households.

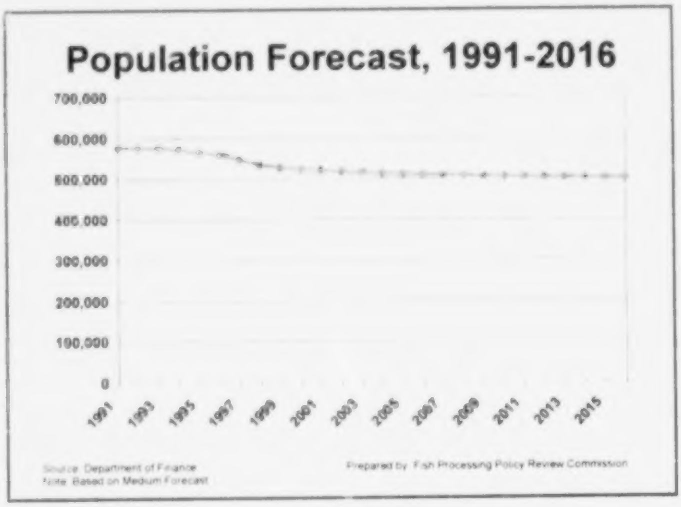
Throughout most of the Commission's consultations, industry members repeatedly expressed concerns about the ageing of the processing workforce and the associated difficulties in attracting young people to the industry. Both plant owners and employees indicated that young people want a longer duration of employment with more substantial and stable incomes. The younger generation is less satisfied with short-term employment and meagre EI benefits in the off-season. As well, the overall opportunities and services available in larger centres are making rural lifestyles less attractive. For these reasons, the industry anticipates a labour shortage within the next five years.

The dramatic changes that have occurred in the fishing industry in the past decade have had an especially negative impact on fish processing workers. The emergence of a shellfish industry has provided many harvesters and plant owners a level of prosperity not seen before in the modern day fishing industry. Plant workers, however, now receive relatively lower incomes in an increasingly seasonal industry that has lower labour content in its final products and a decreasing overall requirement for workers. As well, technological innovation, while necessary for the industry to remain globally competitive, has further eroded total employment levels. The end result, over the last decade, has been large-scale displacement of workers from this sector and a high degree of underemployment for most of the processing labour force.

The 1992 Northern Cod moratorium and the subsequent closures of other fish stocks was the largest single layoff in Canadian history. Indeed, the employment losses that occurred had a relative impact similar to the complete loss of the automobile industry in Ontario or the loss of the agriculture sector in Saskatchewan. The real impacts on plant workers, however, began a few years before the stock closures.

Processing employment actually peaked in 1987-88 at about 30,000. By 1991, the number of people reporting income from fish processing declined to around 16,000, a drop of almost 14,000 people (see Figure 3.1, p.25). The level of employment bottomed out in 1995 at about 12,000 and then recovered to around the current 15,000 mark. Most of these people were permanently displaced from the industry and some would have contributed to out-migration over the past twelve years. Tracking information indicates 91 percent of the 21,400 people with income from fish processing or in receipt of NCARP benefits in 1992 were still in the province in 1999. Thirty-six percent of the 1,950 that moved out of the province had moved to Ontario and Quebec and 34 percent to Alberta. Most of the others had relocated to the Maritime Provinces and British Columbia.

In 1996, as the industry was adjusting to the closure of groundfish stocks, the federal government reformed the EI system. Workers then had to work longer to qualify for benefits while the amount and duration of work available declined considerably. These changes to the EI system, combined with the significant structural changes that have occurred in the industry, have created a high degree of instability for plant workers.



Source: Department of Finance
Note: Based on Medium Forecast

Prepared by: Fish Processing Policy Review Commission

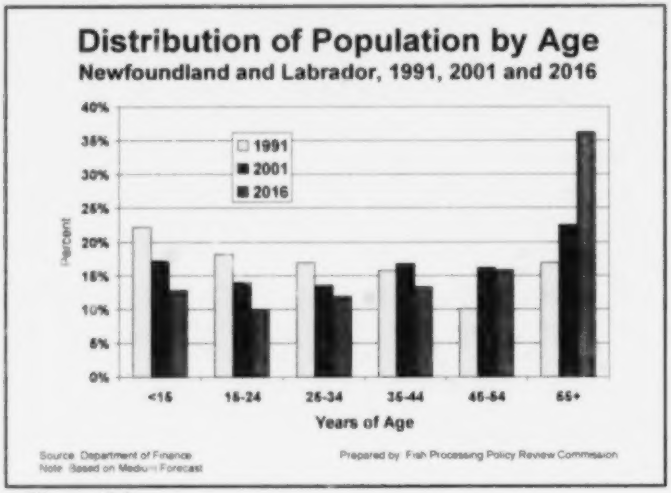
Figure 3.2

Fish plant employment remains important to hundreds of communities in the province. In 2003, the 122 operating fish plants employed almost 15,000 people drawn from 500 different communities. Workers commute from an outer limit of a two-hour drive to a fish plant. Fish processing is a significant employer of women; over half of all plant workers are women. With few economic opportunities in rural areas, changes in employment patterns in this sector have the potentially greatest impact on women.

3.2 THE AGEING POPULATION AND WORKFORCE

The population of Newfoundland and Labrador is ageing as it is in Canada and most Western societies. This province, however, is facing unique challenges because the population is declining and ageing at a faster rate than many other areas of the country.

The birth rate in the province was once well above the national average; however, it is now the lowest in Canada. As well, the out-migration of the last decade or so has tended to be by younger people.



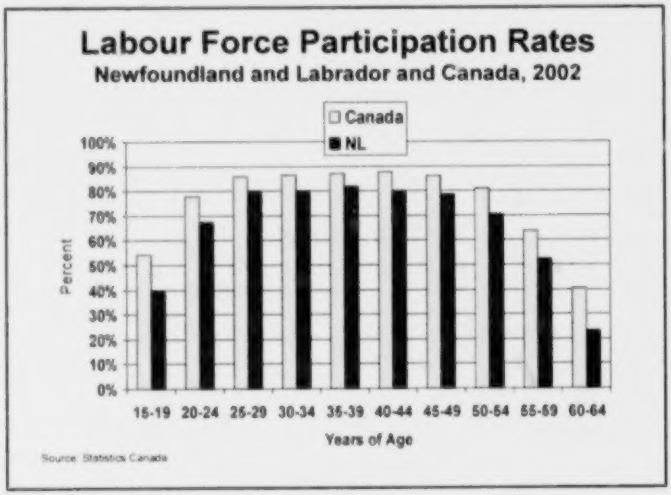
Source: Department of Finance
Note: Based on Medium Forecast
Prepared by: Fish Processing Policy Review Commission

Figure 3.3

The population of the province is expected to decline over the next 13 years. Figure 3.2 indicates that the population of the province is forecast to decline about 4 percent from about 519,000 in 2002 to 500,000 by 2016.

As the population declines, it will also age. In 1991, approximately 73 percent of the population was less than 45 years of age. By 2016, 48 percent of the population will be less that 45 years of age and over one half will be over 45 years. The largest changes in population are expected in the younger and older age groups. The least change is expected in the 35-44 age category. People less than 24 years of age represented 40 percent of the population in 1991, but will decline to 22.7 percent by 2016. The number of people 55 and over is expected to increase from about 17 percent of the population in 1991 to 36 percent by 2016; a 19 percentage point change.

Most significantly, the relative size of the 35-54 age group in 2016 will be similar to 2001. At that time, this age group represented approximately 33 percent of the population compared to a forecast level of 29 percent in 2016. This age group includes the most established part of the workforce. The greatest labour force challenges will occur as this age group matures. Therefore, the greatest difficulties for the labour supply will appear 10-15 years from now and beyond. However, two traditionally bothersome characteristics of the province's labour force could well hold some solution to the difficulties created by this ageing of the population. These are the rate of unemployment and the labour force participation rate.



Source: Statistics Canada

Figure 3.4

One of the responses to these demographic changes will be for more people to enter the labour force and for more people to work. A study prepared and released about a year ago by the Department of Finance indicates that the population, and hence the labour force, will likely adjust to these changed circumstances. Specifically the report states:

> *"A smaller and older labour force could affect long-run economic growth potential, but slower labour force growth is expected to be compensated for on several fronts. First, age related labour shortages are expected to be partly mitigated by a lowering of current high youth unemployment and net-migration rates. Secondly, higher wages and stronger labour demand will probably entice more older workers to stay in the labour force longer. Thirdly, higher productivity growth brought on by labour shortages and technological advances will also help offset the loss of core labour force population..."*

The Province consistently has had the highest unemployment rate in Canada and one of the lowest labour force participation rates. For example, when the unemployment rate in Canada in November 2003 was 7.5 percent, it was 17.4 percent in this province. This November's unemployment rate ranged from 9.6 percent in the St. John's area to over 20 percent on the Burin Peninsula and South Coast areas. This high level of unemployment indicates the degree of flexibility for people to enter labour markets as worker shortages are caused by population changes.

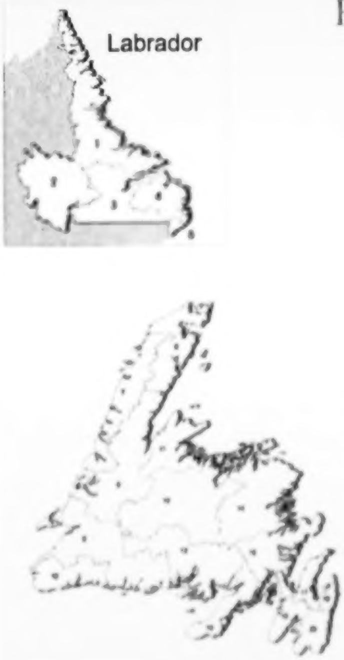
Historically, the labour force participation rates in this province are well below the national rates. At a provincial level, the 2002 participation rate was 58.6 percent compared with the national average of 66.9 percent. The difference is far greater for some age groups. In particular, the participation rate for people 15-24 years of age in Newfoundland and Labrador was 13 percentage points below the national average. Throughout all age categories the labour force participation rates in the province are well below the national average.

When the expected labour shortage develops, it is likely that more people in younger and older age groups will work and participation rates will be closer to those currently found in the rest of Canada. The high unemployment and underemployment found in the province today will likely decline as the population ages. This may provide a buffer for the labour force supply and help mitigate the potential labour shortages.

3.3 REGIONAL CHANGES IN POPULATION

Some aspects of the actual and forecasted changes in the regional distribution of population are significant for the fish processing sector. Since the moratoria, the greatest population declines have occurred in the regions of the province most dependent on groundfish. As well, this trend is expected to continue into the forecast period of 2016. The ageing of the population will become more pronounced in many of these areas.

From 1991 to 2001, significant population declines occurred in rural areas and the greatest declines have occurred in areas that had been most dependent on groundfish. Indeed, 15 of the 20 Economic Zones realized double-digit population declines ranging from 22.4 percent in the



Population Change by Strategic Economic Zones
Newfoundland and Labrador, 1991-2016

Economic Zone	1991-2001 % Change	2001-2016 % Change
1 - Inukshuk	+4.8 %	+11.9%
2 - Hyron	-15.9%	+1.9%
3 - Central Labrador	-4.9%	+3.8%
4 - Southeastern Aurora	-8.9%	-10.4%
5 - Labrador Straits	-10.9%	+7.6%
6 - Nordic	-21.5%	-13.6%
7 - Red Ochre	-17.8%	-3.1%
8 - Humber	-10.9%	-3.4%
9 - Long Range	-14.9%	-9.6%
10 - Marine and M	-22.4%	-19.7%
11 - Emerald	-19.6%	-13.0%
12 - Exploits Valley	-12.0%	+1.8%
13 - Coast of Bays	-15.7%	-5.7%
14 - Kittiwake	-14.5%	-10.3%
15 - Discovery	-13.8%	-10.6%
16 - Schooner	-17.0%	-18.8%
17 - Mariner	-9.3%	-18.9%
18 - Avalon Gateway	-20.3%	-21.4%
19 - Capital Coast	-1.2%	+5.4%
20 - Irish Loop	-19.8%	+7.0%
Total Province	**-10.1%**	**-4.0%**

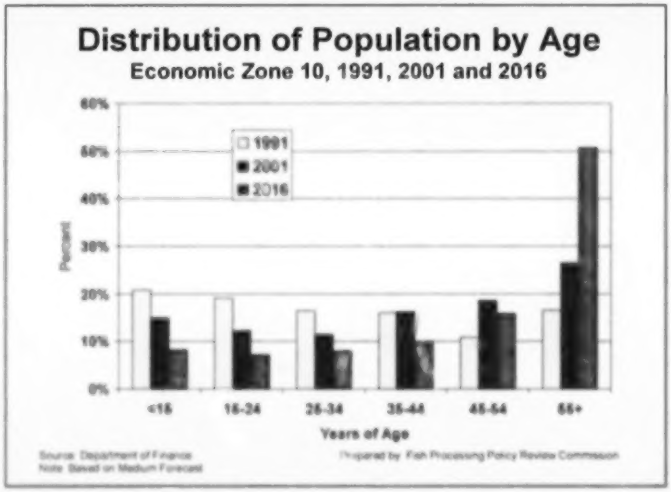
Source: Department of Finance
Demographic Change: Newfoundland and Labrador Issues and Implications

Figure 3.5

Port aux Basques area (Zone 10) to about 11 percent in the Labrador Straits (Zone 5) and Humber Valley (Zone 8) areas. The other five regions had also experienced population declines ranging from 1.2 percent in the St. John's region (Zone 19) to 9.3 percent in the Mariner Zone.

Declines in population are likely to continue in many of the areas that have seen the greatest population losses since 1991. The population in the Port aux Basques area (Zone 10) for example, is forecast to decline by 19.7 percent and the Baie Verte Peninsula (Zone 11) and the tip of the Great Northern Peninsula (Zone 6) could each see about a 13 percent decline. As Figure 3.5 indicates, most of the forecasted major population declines will continue to occur in rural areas, with most of Labrador, Central Newfoundland and the St. John's area being the main exceptions. This raises concerns about the availability of a continuing labour supply for processing facilities not located near centres of population concentrations.

Of equal concern is the age profile in those areas with a declining population. In larger centres, the labour force may find it easier to adapt. Rural areas with a very high percentage of older people will face a more difficult situation. Again, Zone 10 (Port aux Basques Area) is one region where the population is forecast to age considerably over the next 15 years. By 2016, over 66 percent of the population in that area is expected to be older than age 45. In comparison, only 27.5 percent of people were in this age group in 1991. Zone 10 has been used as an example of this problem, but many other areas are facing the same issues. This ageing of a declining population in rural areas will have significant implications for local labour markets, the economic structure of communities and the location economics of fish processing.

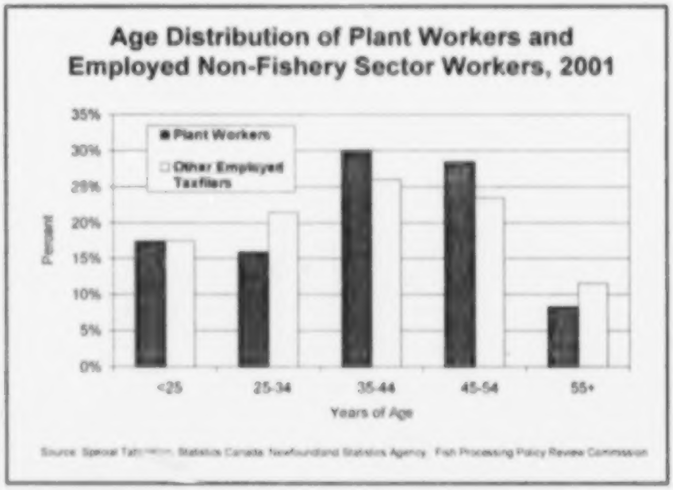

Distribution of Population by Age
Economic Zone 10, 1991, 2001 and 2016

Source: Department of Finance
Note: Based on Medium Forecast
Prepared by: Fish Processing Policy Review Commission

Figure 3.6

3.4 THE AGE PROFILE OF THE PROCESSING SECTOR

The ageing of the general population is evident in the processing sector and mirrors the trends within the general population. Tax-filer information indicates that in 2001 the age structure of processing workers was only slightly different from other employed non-fishing sector workers. Proportionately fewer plant workers are less than 45 years of age, and more are over 45 years of age, than are non-fishery sector workers. This is contrary to the general current


Age Distribution of Plant Workers and Employed Non-Fishery Sector Workers, 2001

Source: Special Tabulation, Statistics Canada, Newfoundland Statistics Agency. Fish Processing Policy Review Commission

Figure 3.7

perception of a substantially older than average fish processing labour force.

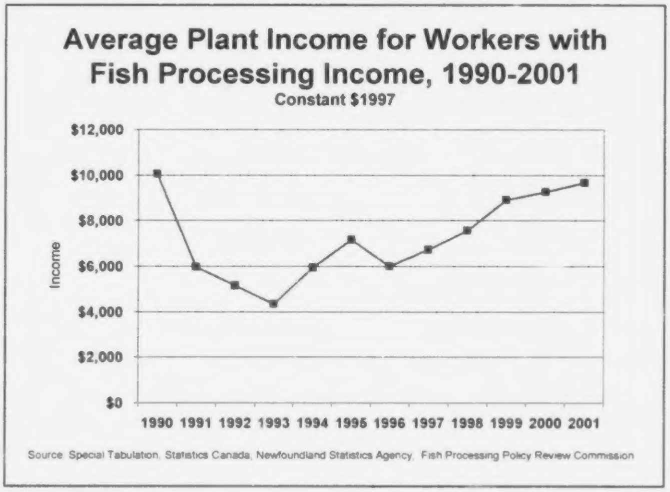
The majority of plant workers are between 35-54 years of age; there are relatively more plant workers in these age groups than in the case of other non-fishery sector workers. On the other hand, the percentage of plant workers less than 34 years of age, and older than 55, are below those of the general non-fishing sector. The differences in age structure are likely a result of the early retirement components of the groundfish adjustment programs of the first half of the 1990s. As well, seniority clauses, combined with levels of processing employment, have not provided significant opportunities for new entrants to the processing sector. This also has contributed to the current age structure. This overall ageing of the population and the processing sector labour force has implications for plant productivity and the long-term labour supply prospects of many companies. Since fish processing remains a dominant occupation in many areas of the province these trends will have widespread impacts.

Distribution of Plant Workers by Age and Data Summary Region, 2001

	Number	<25	25-34	35-44	45-54	55+
A	610	18%	23%	28%	23%	10%
B	410	7%	12%	34%	37%	10%
C	460	9%	13%	33%	33%	13%
D	940	24%	20%	24%	23%	7%
E	400	na	na	30%	28%	5%
F	480	na	na	38%	31%	10%
G	690	13%	17%	38%	26%	7%
HJ	1,390	10%	10%	35%	37%	8%
I	800	8%	9%	29%	43%	13%
KS	1,260	10%	14%	33%	34%	10%
L	550	22%	20%	29%	24%	5%
MN	690	22%	13%	28%	30%	7%
O	560	23%	21%	29%	20%	7%
P	410	34%	17%	22%	20%	7%
Q	670	18%	19%	33%	22%	7%
R	1,150	23%	17%	25%	28%	8%
T	1,200	21%	17%	28%	27%	8%
U	660	16%	18%	31%	26%	9%
V	690	17%	16%	30%	29%	7%
W	780	23%	19%	27%	23%	6%
Prov.	**14,770**	**17%**	**16%**	**30%**	**28%**	**8%**

Source: Special Tabulation, Statistics Canada; Newfoundland Statistics Agency; Fish Processing Policy Review Commission

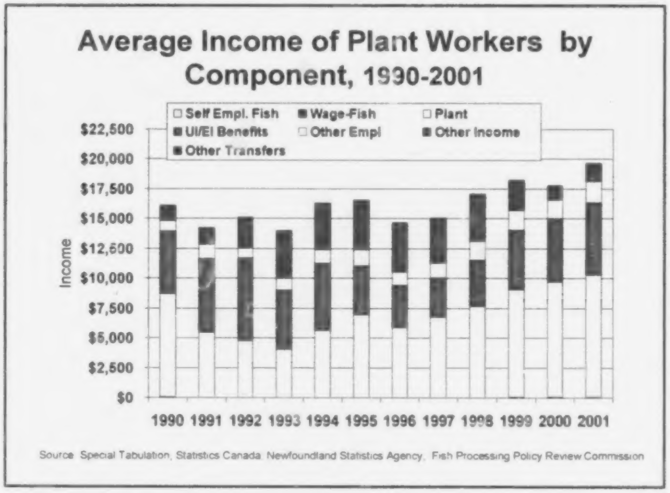
Figure 3.8



Source: Special Tabulation, Statistics Canada, Newfoundland Statistics Agency, Fish Processing Policy Review Commission

Figure 3.9

Regionally, two main trends are present. The largest proportions of older processing workers are in the areas that have experienced the greatest out-migration or where there are large unionized workforces such as the Burin and Bonavista Peninsulas. Relatively more older workers are found on the Western portion of the Island (Regions B, C, E, and F in Figure 3.8). This area has experienced large-scale out-migration and the severe impact of groundfish closures has not been offset by the emergence of other species.



Source: Special Tabulation, Statistics Canada, Newfoundland Statistics Agency, Fish Processing Policy Review Commission

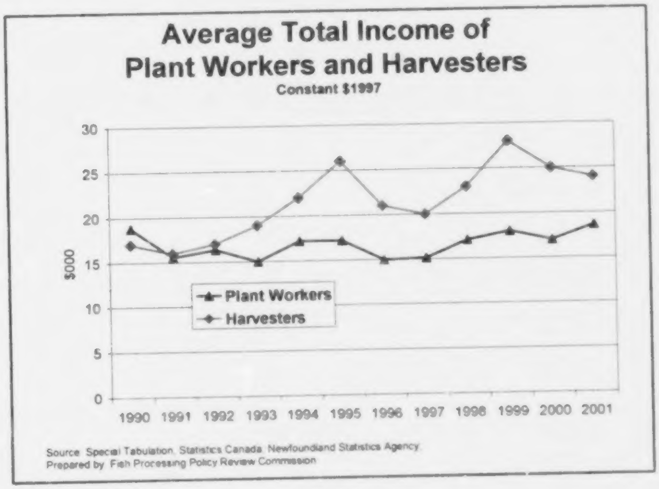
Figure 3.10

The Burin Peninsula (Regions H, I and J) also has relatively more older processing workers; 56 percent of the workers in area I are 45 years of age or greater compared with 36 percent of processing workers in general. At the other extreme, the age distribution of processing workers in regions within or adjacent to the Avalon Peninsula (Areas O, P and Q) are the youngest.

3.5 INCOME LEVELS OF FISH PROCESSING WORKERS

The total income of fish processing workers consists of plant earnings, EI benefits and other income from other sources. The majority of plant workers do not have earnings from other sources but depend solely on the income generated by their plant employment. Typically, plant income represents about one half of total income, followed by EI income and income from other sources.

The total income received by all fish processing workers has declined 31 percent from $218 million in 1990 to $151 million in 2001. At the same time, EI/UI benefits have decreased 32 percent from $132 million to $89 million. This decline in total income reflects structural changes in the industry and the resulting decrease in the number of people employed in fish processing. The number of people working in fish processing plants (those reporting plant income on their income tax returns) has declined from 25,160 in 1990 to 14,770 people in 2001 (see Figure 3.1).



Source: Special Tabulation, Statistics Canada, Newfoundland Statistics Agency
Prepared by: Fish Processing Policy Review Commission

Figure 3.11

Fish processing workers receive an average weekly wage (including overtime) above that of most occupations with similar formal training found in rural communities. On this basis, the average weekly wage of fish processing occupations was $567 in 2002 compared to $319 in home care, $261 in food service, and $420 for retail trade. Weekly income levels are below that earned in trade contracting ($575) and durable goods manufacturing ($672).

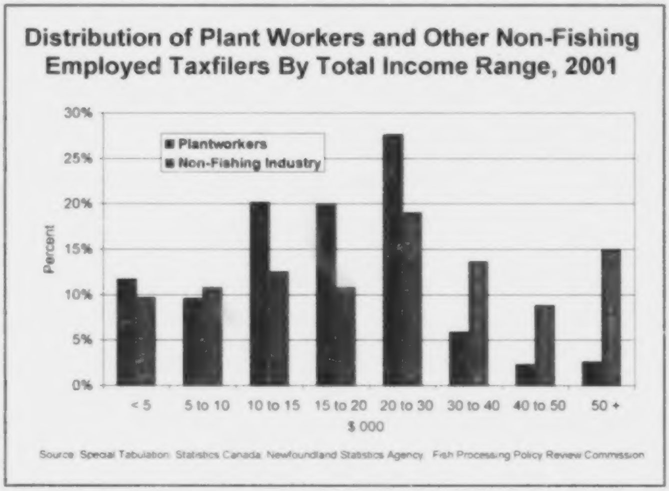
In 2001, of the 14,770 people reporting plant income, 11,590 also received EI benefits, and 5,060 people had employment income from other sources. Another 540 also worked in fishing. Conversely, 9,700 people had employment income only from fish processing.

In current dollars, the average plant income has increased 18 percent from $8,660 in 1990 to $10,220 in 2001. However, in real terms (constant $1997), plant workers' income has declined four percent from $10,059 in 1990 to $9,660 in 2001.

The distribution of income for workers has improved relative to 1990. In 1990, 24 percent of plant workers had total incomes greater than $20,000. By 2001, 38 percent of workers were in this income range. The relative number of people with incomes less than $10,000, however, has only changed modestly from 25 percent in 1990 to 21 percent in 2001.

The incomes of harvesters have outpaced the growth in income of plant workers. In 1990 the average total income of plant workers was 11 percent higher than harvesters. By 2001, the average total income of plant workers had declined to 21 percent below the level of harvesters. On the basis of total income from all sources, the average total income for fish processing workers was $19,701 in 2001. In the same year, average total income from all sources for harvesters was $24,999.

More significantly, relatively more processing workers earn lower incomes than do other non-fishing sector workers. Approximately 89 percent of plant workers have average total incomes from all sources of less than $30,000 per year compared with 75% of harvesters and 63 percent of non-fishing sector workers.


Distribution of Plant Workers and Other Non-Fishing Employed Taxfilers By Total Income Range, 2001

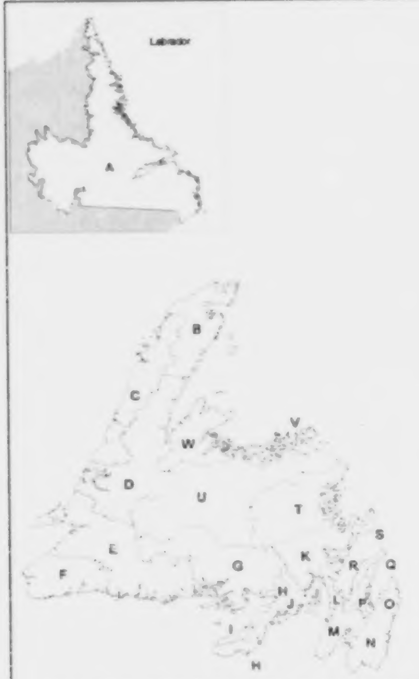
Source: Special Tabulation: Statistics Canada: Newfoundland Statistics Agency: Fish Processing Policy Review Commission

Figure 3.12

The next chart shows that income earned by processing workers varies widely across all regions of the province. Average reported income from fish processing sources ranges from a low of $6,138 in the Baie Verte Peninsula area (Region W) to $16,152 on the western side of the Burin

Peninsula. The data for the northeast portion of the Avalon Peninsula (Region O) cover mostly head office employees and plant management and, as such, their incomes are not representative of the majority of in-plant workers.

Average EI benefits received by plant workers are about $6,000 and range from a low of $2,189 to a high of $8,567. Plant incomes represent approximately 52 percent of average total income for all workers and EI benefits represent approximately 31 percent of average total income. This ranges from a low of 18 percent in the Isthmus of Avalon (Region L) to 45 percent in the Northwest region of the Avalon Peninsula (Region Q). EI usually represents the largest portion of income for workers with plant income between $6,000 and $9,000 per year.



Average Income for Plant Workers by Data Summary Region, 2001

Region	Plant Income	EI Income	Other Income	Total
A	$ 7,883	$ 6,398	$ 4,399	$ 18,680
B	$ 10,897	$ 6,812	$ 2,615	$ 20,324
C	$ 8,854	$ 8,567	$ 2,109	$ 19,530
D	$ 6,577	$ 4,970	$ 3,471	$ 15,018
E	$ 7,985	$ 5,435	$ 2,545	$ 15,965
F	$ 8,477	$ 5,860	$ 2,208	$ 16,545
G	$ 13,327	$ 5,975	$ 2,296	$ 21,598
HJ	$ 15,938	$ 6,498	$ 2,357	$ 24,793
I	$ 16,152	$ 7,313	$ 2,076	$ 25,541
KS	$ 9,245	$ 7,163	$ 2,214	$ 18,622
L	$ 13,900	$ 3,420	$ 2,170	$ 19,490
MN	$ 6,207	$ 5,481	$ 3,404	$ 15,092
O	$ 27,850	$ 2,189	$ 23,673	$ 53,712
P	$ 7,197	$ 4,190	$ 3,532	$ 14,919
Q	$ 7,629	$ 7,804	$ 1,862	$ 17,295
R	$ 7,914	$ 4,960	$ 2,610	$ 15,484
T	$ 7,972	$ 6,877	$ 2,450	$ 17,299
U	$ 6,662	$ 6,856	$ 2,506	$ 16,204
V	$ 6,947	$ 6,234	$ 2,476	$ 15,567
W	$ 6,138	$ 5,901	$ 2,971	$ 15,010
Province	$ 10,220	$ 6,063	$ 3,418	$ 19,701

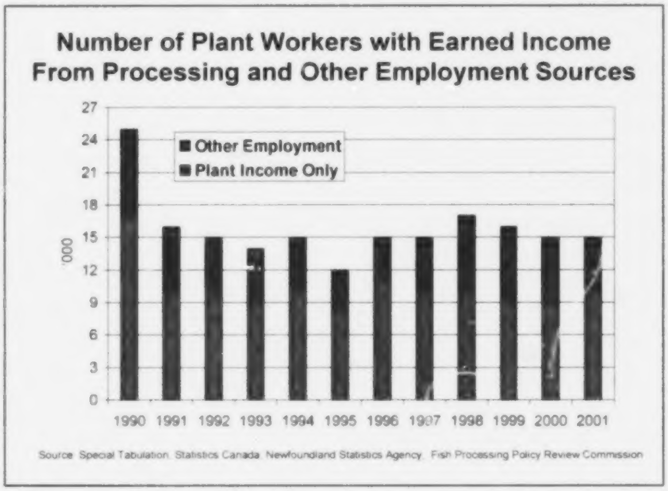
Source: Special Tabulation, Statistics Canada; Newfoundland Statistics Agency; Fish Processing Policy Review Commission

Figure 3.13

The region with the highest average level of income from plant earnings is the Isthmus of the Avalon Peninsula (Region L) where 71 percent of total income is from the plant. This is due largely to the Arnold's Cove plant that operates for most of the year. Similarly, areas of the South Coast and the Burin Peninsula (Regions G, H, I and J) have the next highest levels of total income coming from plant employment. Again, this is due to the relatively longer duration of employment in plants in these areas compared to elsewhere. (These South Coast and Burin Peninsula plants were some of those that worked 12 months of the year in the past.)

3.6 INFLUENCE OF EI BENEFITS

As noted above, Employment Insurance benefits represent a significant portion of the total annual incomes of plant workers. Many qualify for EI without employment in other sectors. Each year, however, about 5,000 workers who work in fish plants do not qualify for EI as plant workers. Some of these workers are students (about 1,200 in 2003). However, many are believed to be marginal workers with a continuing attachment to the industry but who can no longer get enough work in a fish plant to qualify for EI.


Number of Plant Workers with Earned Income From Processing and Other Employment Sources

Source: Special Tabulation, Statistics Canada, Newfoundland Statistics Agency, Fish Processing Policy Review Commission

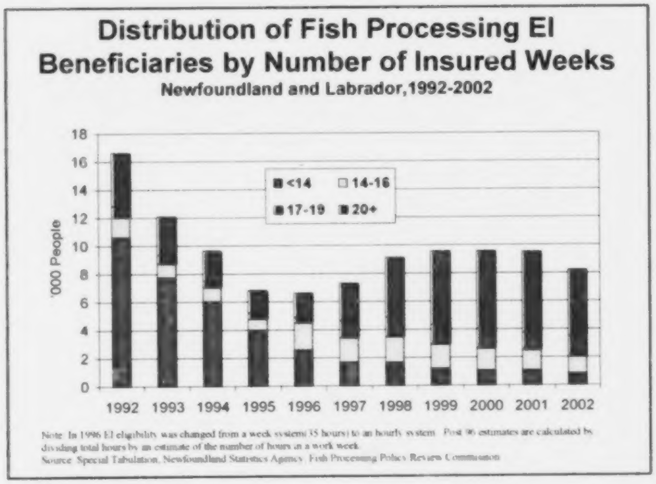
Figure 3.14

In 2001, the tax files indicate that 9,710 plant workers had earned income only from a processing plant. At the same time, 11,590 workers had both processing income and collected EI benefits. And data from HRDC indicates that 9,600 beneficiaries qualified for EI as plant workers. This suggests that about 2,000 plant workers (11,590-9,600) found other work outside fish processing to qualify for EI in 2001. It is very likely that many of these people may have found other income from such sources as government sponsored make-work programs.

Data on EI qualifiers by hours worked indicates that, on average, in 2002, plant workers qualified for EI with an average of 836 hours and a median, or most commonly occurring, number of 735 hours. Levels of employment in processing had only really begun to recover from the depths of the moratoria from 1996 onwards when the changes to the EI program came into effect.

The average duration of employment, (the number of hours of work), has increased substantially for EI claimants in the last decade. In 1992, 63 percent of plant workers qualified for EI with less than 14 weeks of work. By 2002, only 10 percent of workers qualified with less than the minimum number of hours. Conversely, in 1992, 23 percent of workers qualified for EI with 20 or more weeks of employment compared with 2002, when 57 percent qualified with 20 or more weeks (700 + hours) of work.

Another outcome of EI reform is that plant workers now strive to qualify for EI with more than the minimum number of hours. The duration of employment and the number of weeks worked greatly influence the benefits received. Workers receiving the minimum number of hours are impacted in two ways. Firstly, the minimum of 420 hours only entitles the claimant to 32 weeks of benefits. Workers have to work another two weeks with a total of 70 hours to gain another week of benefits. A minimum number of about 600 hours over a 17 week period of employment is now necessary for a plant worker to have a year-round income from employment and EI. This would result in 34 weeks of benefits assuming that the weeks are consecutive.


Distribution of Fish Processing EI Beneficiaries by Number of Insured Weeks
Newfoundland and Labrador,1992-2002

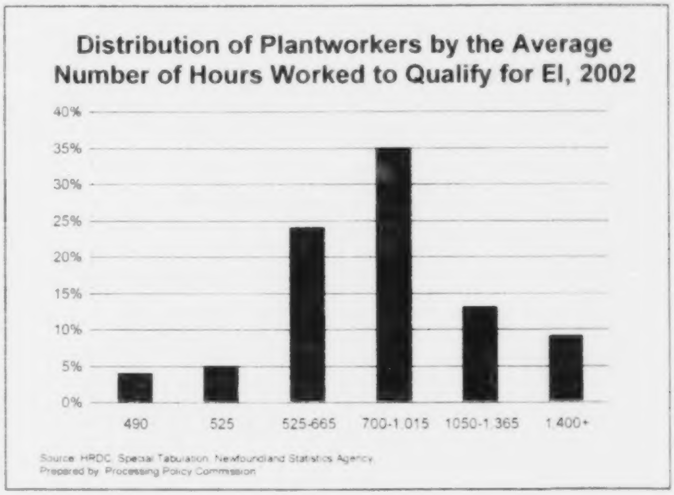
Note: In 1996 EI eligibility was changed from a week system (35 hours) to an hourly system. Post 96 estimates are calculated by dividing total hours by an estimate of the number of hours in a work week.
Source: Special Tabulation, Newfoundland Statistics Agency, Fish Processing Policy Review Commission

Figure 3.15

The other factor affecting the amount of work required by plant workers is the EI divisor rule. EI benefits are calculated using a divisor of a minimum of 14 weeks. Workers have to work a minimum of 490 hours spread over 14 weeks for the divisor not to reduce their benefits. Many plant workers actually work more than this minimum number of hours; but over a compressed processing season that is often less than 14 weeks.

3.7 CURRENT ISSUES AND FUTURE IMPLICATIONS

There are several significant conclusions on the current issues and future implications arising from this analysis of the demographic and economic characteristics of the fish processing labour force. These include the following major items:



Source: HRDC, Special Tabulation, Newfoundland Statistics Agency
Prepared by: Processing Policy Commission

Figure 3.16

- Plant workers have not benefited from the returns generated by the post-moratoria fisheries to the same extent as have other industry participants;
- Employment incomes from fish processing are still behind pre-1992 levels in real dollar terms;
- More plant workers earn less than $15,000 than the general working population;
- The levels of employment are much lower than in groundfish days as today's industry is much less labour intensive; and likely to get even more so to compete globally;
- Consequently, there are no quick fixes to the income problems of fish processing workers generally;
- The fish processing labour force is, and will continue to be, affected by the general changing demographics of the province's population;
- This includes the ageing phenomenon, the expected decline in total population numbers and the "silent movement" to more populated centres or areas of the province;

- The future levels and locations of fish processing activity are more likely to be influenced by these changing population characteristics than by any other single economic factor.

These problems of the processing labour force are province-wide issues. All aspects of the changing demographics of the provincial population cannot be halted. Some of the widespread effects of the emerging labour force changes are over a decade away. The opportunities to affect the incomes problem are dealt with in later Chapters that address the suggested new approach to management of the fish processing sector.

It is clear that government must combine its fish processing sector policies and its general economic development policies if certain rural communities are to survive. People are no longer satisfied to live in areas that do not have a wide range of services or do not provide meaningful employment opportunities. Government must focus its economic development efforts on areas where people are likely to remain. Small communities can survive but they have to be anchored around larger centres that provide a range of commercial, educational, health and other social services and employment opportunities. I will deal with this again in a section of Chapter 6 on the concept of strategic plants as well as in Chapter 9 where the proposed new management system for the fish processing sector is described.

A group of fish processing workers presented two income related proposals to the Commission that deserve a few final comments. These included a proposal for a "Transition Fund" and reforms to the EI system. The above assessment of the levels of, and trends in, incomes earned from fish plant employment gives some perspective to the rationale for these ideas. The notion of a "Transition Fund" is an understandable attempt to deal with the reality that the circumstances of many fish plant workers are not improving and, if anything, may have become even more precarious in the last two years. I consider the proposal for such a fund as made to the Commission to be one for industry to advance rather than governments. It is another of those matters on which more of a "meeting of the minds" must first take place before this notion can be considered a feasible proposition even for most of the industry.

The same group of processing workers also made a presentation on changes they feel should be made to the EI rules and regulations. These are intended to deal with the difficulties such workers believe they are increasingly facing in garnering enough work (and contributions) from volatile processing activities to provide even a level of annual income that is still below satisfactory levels. The assessment of the incomes situation in this Chapter makes the reasons for this proposal all the more understandable. As I indicated to that group, this matter is not in the jurisdiction of the Minister of Fisheries and Aquaculture and I am confining recommendations in this report to that area of authority.

Most plant worker groups proposed some form of early retirement program to address the surplus labour problem that exists at most plants. These early retirement programs were seen as continuing initiatives and not ones that would operate only for a short fixed term. However, all such federal-provincial funded arrangements in fisheries have been triggered by some government-induced major structural change and have been for fixed terms. This precondition of such a structural adjustment does not appear to exist for such an early retirement arrangement in the main fish processing activities where surplus labour is now felt to be a problem. The current surplus labour stems from a carry over of workers from the closure of major fisheries and a decreasing labour content in processing methods. Participants generally feel that governments need to assist them as they continue to adjust to this reality. I will refer to a possible adjustment mechanism to address some of this problem in Chapter 9.

The other labour force problems identified in this Chapter must be dealt with by industry as much as by government. The latter can endeavour to take policy initiatives that can help offset some of the implications of a declining, ageing and relocating population in terms of where fish processing will be most viable. These possibilities are discussed later in Chapter 9. The industry efforts must be directed to finding ways and means to make fish processing employment more attractive to present and future workers. The most obvious of these initiatives are those that could increase the duration of employment either by adopting industry-wide measures to reduce the derby nature of processing activities, developing more processed products and undertaking training programs to ensure that future workers have the qualifications necessary to find meaningful work in this industry.

CH. 4 CRAB SECTOR ISSUES

This Chapter will analyse the specific crab sector issues that were included in the Commission's Terms of Reference. This includes a review and examination of the following:

- Work content in crab plants;
- The export of crab sections for reprocessing;
- Maintaining proper quality standards when packing to the product specifications of buyers;
- The extent of, and reasons for, differences in crab prices in the Maritimes and in this province.

The first three of these items are interconnected and may result in some overlaps in the analysis and assessment. Common threads will be tied together in the concluding summary at the end of this Chapter. The issues covered in this Chapter are somewhat complex, technical and the object of all manners of subjective judgements. Many industry participants consider finding possible solutions to the underlying conditions to be a critically important matter. For these reasons the Commission sought third party expert help in dealing with several of these topics. Much of the information and analysis on which the following parts are based came from these external studies. The conclusions based on them and other information and assessments are those of the Commission.

4.1 WORK CONTENT IN CRAB PLANTS

The current level of work content in crab plants has become the focus of some concern and dissatisfaction in recent years. These probably reached a peak during the crab sector dispute of this past summer. The matter involves, or is expressed in, a variety of factors. These include the short working seasons for many crab operations, the resulting low levels of annual incomes, the lack of adequate work weeks for all workers associated with these plants, increasingly mechanized crab processing, and the lower level of crab processing now compared to previously.

Some of the shortness in working seasons is due to the rate at which crab is caught and processed. This is the first cash flow most processing operations and fish harvesters receive since the previous Autumn. Catch rates are usually best at the opening of the fishery; quality and processing yields are also high at that time; and market prices tend to be high at the beginning of the season. Crab harvesting and processing are quite lucrative activities that make it attractive to pursue them early and quickly in the fishing year. The possibility that market prices may decline as product is shipped to buyers can also spur faster rather than slower operations.

The number of new crab processing plants opened since 1998 has also driven competition for crab landings and resulted in rising prices to harvesters and further expansion of individual plant's processing capability. Since crab is now the prime cash crop, no operator can risk losing supplies to competitors because of a lack of processing capability or underbidding for raw material.

The income situation of fish processing workers was discussed in detail in Chapter 3. That assessment was based on data from tax filing information, which is the only official and public data on the subject. Because that data cover all individuals who reported income from fish processing employment, it likely overstates the incomes of plants workers generally and crab plants workers in particular. The following facts are still significant and relevant to this issue:

- Average income from fish processing is only now returning to pre-1992 levels. On a constant dollar (1997) basis, plant worker incomes actually declined from $10,059 in 1990 to $9,660 in 2001;
- As much as 89 percent of fish processing workers earn less than $15,000 from employment;
- Total income (in constant 1997 dollars) from all sources now averages $18,746 as compared with $18,621 in 1990;
- For crab plants, the total hours of work have increased from 1.8 million hours in 1994 to 3.7 million hours in 2002;
- The incomes of plants workers are lower on average than the income levels of all income earners in the province.

This is not an overly attractive income picture. The low end of the income scale is hidden by the averages, but the cases of low earnings described to the Commission are very real for those who experience them. A significant and related fact is that, as a group, fish harvesters have fared much better from the transformation of the fishing industry since the mid 1990s than have plant workers.

The possible ways to lengthen the working season of crab plant workers might lie in a number of areas. Some of these include:

- Reducing the numbers of workers at plants;
- Consolidating plant operations;
- Slowing the race to catch and process;
- Increasing the level of processing of crab.

These possibilities are discussed in different parts of this report; several of them relate to the industry generally or to other items in the Commission's Terms of Reference. The issue of reducing the total number of plant workers was discussed in the context of the demographics of the fish processing labour force in Chapter 3. Slowing the race to catch and process and the issue of plant consolidation will be analysed in Chapters 6 and 7 and recommendations made in Chapter 9. The question of increasing the degree of crab processing, an analysis of the decline in crabmeat production, and the changed circumstances in crab markets, will be covered in this Chapter.

The most common proposal from industry employees was that processors should be required by law to produce more processed crab products, specifically meat. The regulatory approach is a tricky one to rely on, especially if changes in market signals are not detected at an early stage. It also would require government to maintain a detailed and current assessment of the financial situation and capability of individual companies so that informed and objective decisions could be made.

It could also be viewed as a major second-guessing of corporate decision-making in an area that significantly influences commercial survival. However, there is no reason why government should not require an annual accounting from licence holders on their rationale for product selection and market destinations. Providing evidence to the licensing authority that at least "best efforts" are being made to produce an increased level of processed products should become a part of the annual licence renewal process. As part of this approach, processors should be required to demonstrate to government why at least 10 percent of their crab output should not be product processed beyond the industrial section pack stage.

Recommendation 4.1

Therefore, I recommend:

- ***That all licensed crab processors be required to process at least 10 percent of their total production beyond the industrial section pack stage in this province unless it is clearly demonstrated that this is not financially feasible. This should become part of the annual Processing Plan recommended in Chapter 9.***

4.2 SECTION EXPORTS FOR REPROCESSING

This part will analyse the issue of exporting crab sections from this province for reprocessing, where such reprocessing takes place, and the final destination and types of reprocessed products. These questions are closely tied to the crabmeat production issue, which will also be examined here in some detail. The following summary of an expert analysis conducted for the Commission will elaborate on the various components of this issue.

Crab sections are now the main form of product exported by the province's licensed operators. The available export data for this product by destination from 1998 to 2002 are shown in Table 4.1.

The United States has clearly been the largest final market for Newfoundland and Labrador crab sections since the latter half of the 1990s. This market has absorbed an average of 73.4 percent of the annual exports of crab sections since 1998. The traditional destination of sections for reprocessing has been China where crabmeat is produced for Japanese companies for their markets in Japan. This activity appears to have increased somewhat since 1998 but is virtually balanced by a decline in the export of sections directly to Japan where they serve a traditional market. The two destinations together account for an annual average of 21.8 percent of section exports; with a high of 25.3 in 1998 and a low of 16.7 percent in 2001. There has been a slight downward trend in the total export of sections to China and Japan while the level of shipments to the United States is relatively stable.

Table 4.1
Newfoundland and Labrador Snow Crab Sections Exports by Country, 1998-2002, (pounds)

Country	1998	1999	2000	2001	2002
United States	16,189,674	24,803,864	19,688,803	24,946,459	27,266,226
China	2,410,891	4,610,609	4,399,501	4,405,324	5,403,936
Japan	3,161,425	4,014,022	2,125,460	881,598	2,218,836
Thailand	376,688	1,110,429	1,412,312	1,167,815	1,757,974
S. Korea	-	17,078	136,624	51,233	388,664
Vietnam	-	167,893	33,610	80,953	240,260
UK	-	35,328	59,430	71,398	53,201
Denmark	-	-	-	-	254,654
Total	**22,138,678**	**34,759,223**	**27,855,740**	**31,604,780**	**37,583,751**

Source:Seafood.com

The popular conclusions of increasing exports of sections to China and Japan for reprocessing into meat are not supported by these data. However, the trend in shipments to other Asian countries that are not consumers of crabmeat is slightly more definitive. The exports of sections to South Korea, Thailand and Vietnam have risen to 6.3 percent of the annual total exports from this province by 2002 from a starting point of 1.7 percent in 1998. Also, other export/import data indicate these countries are exporting processed snow crabmeat to the United States. This indicates an emerging crab reprocessing activity is developing in these other Asian countries.

There are also reports of crab sections being sent to the Maritimes for meat extraction. There are no data on inter-provincial shipments of product to verify this. While it may not be possible for the government to directly restrict this practice, processors should realize this could clearly be a significant irritant for plant workers in this province.

The real problem for production of crabmeat in this province is that the United States market for snow crab has stagnated while consumption of all crabmeats has increased. Crabmeat is primarily an ingredient as opposed to a centre-of-plate consumption item like crab sections.

Imports of all crabmeats into the U.S. have increased almost 100 percent since 1998 while snow crabmeat imports have barely moved upward. Crab sections became popular with U.S. consumers when low prices resulted from the huge Alaskan fisheries of 1998 and 1999. The U.S. then became the dominant market for Canadian crab with Japan becoming a less important market. When the Alaskan fishery collapsed, this expanded market turned to Newfoundland and Labrador suppliers and caused dramatically higher prices.

As the price of crab sections drove up the price of snow crabmeat, users found other less expensive sources such as Asian swimming crab, red crab, Centolla, Jonah and Rock crab. As a result, the imports of snow crabmeat did not increase when the total consumption of all crabmeat did. The selling prices of snow crabmeat did increase significantly while the prices of sections did not. The former also fluctuated over a much wider range ($5.00 – $10.00 U.S.) than the latter ($3.00 – $4.25 U.S.). End-users of crabmeat dropped snow crab products and moved to the substitutes mentioned above, thereby depressing the market price for snow crabmeat.

This consumer rejection of pricey snow crabmeat was coupled with an increased cost of production from increasing raw material prices. The Commission's consultant indicates that producers need to achieve a market price ratio of meat to sections of about 2.2 to break-even on raw material costs alone. This ratio (which does not consider production labour costs) was only achieved twice in the past five years: in 1998 when section prices were low, and a period in the 2000/2001 seasons when both sections and meat prices were high. That slight recovery in crabmeat prices caused increased production which led to an over-supply as the high prices both reduced the demand for Newfoundland and Labrador snow crabmeat and put prices back down to a level that is uneconomic for local producers.

The loss of this meat market and the continuing high demand for Newfoundland and Labrador crab resulted in some dark shell and broken sections finding their way into standard section packs. This resulted in some complaints from buyers in 2000 and 2001. But in a situation of lower supplies, product specifications were reported to have expanded to cover these less than standard-quality packs. As demand continued to exceed supply, a secondary market developed for broken and dirty sections. This allowed producers to maintain the quality of standard packs while being able to sell packs of dirty and broken sections without having to produce meat at a loss.

However, early in the 2003 season (before July), buyers in the markets were complaining that secondary pack material was being "salted" into some standard packs again (see Section 4.3 below). It has been reported U.S. purchasers then shipped some of these secondary section packs to China and had the meat shipped back to the U.S. Other reports have some of this product being sold directly to Chinese processors who then sell the meat back into the U.S.

There are, then, two aspects of the exporting for reprocessing issue. One involves the decline in the U.S. market for Newfoundland and Labrador snow crabmeat. This is a function of the increasing cost of production driving the selling price beyond what end users are willing to pay. The market demand for this product has stagnated for this reason while cheaper substitutes have been found to supply the still increasing total demand for crabmeat. The increased production cost of the Newfoundland and Labrador product has probably resulted in some increase in the supply of snow crabmeat from reprocessing activities. However, the available export/import data do not indicate this is significant. The major market demand is still for sections; and the continuing low supplies, combined with maintenance of quality, will ensure high priced sections result in relatively minimal amounts of raw material being used for meat production.

It is also significant that the Japanese demand for snow crab from North America has always been for sections from which buyers produce crabmeat and other consumer products required for their domestic markets. No North American producer has ever supplied snow crabmeat directly to this market. The Japanese purchases of crab sections have always included traditional reprocessing requirements. This is similar to the situation in capelin where the only viable market available to Newfoundland and Labrador processors was for large-size packs from which the Japanese buyers had market-ready final products produced. Production and transport economics means this level of processing is not possible in this province.

The demand for crab sections in Japan will continue to be determined by the total demand for crab in that market. This appears to be influenced by the overall state of the Japanese economy and the buying power of the yen. When both are good the export of crab from Canada will be higher in relation to sales into the U.S. and vice versa. Since the decline in the Alaskan fishery, total annual Japanese purchases of sections from Canada have tended to fluctuate around the 15,000 ton level for these reasons.

In these circumstances, crab exports will continue to consist primarily of sections with the proportion destined for reprocessing being determined by several factors. These include the U.S. market price for snow crabmeat, the local cost of production of that product, the annual amount of "second-grade" crab and the relative share of total production acquired by Japanese buyers in competition with U.S. importers. Any changes in export levels to other reprocessing locations will not affect the overall proportions but only the distribution of the activity. There are some indications that rock and toad crab are being increasingly used for meat production because of the lower raw material price. However, this activity is not widespread.

Trends in the development of these activities can be effectively monitored by data collection and analysis carried out at the end of the crab processing season. Most of the necessary import/export data are such as those included in one of the reports contracted by the Commission. The Department could easily update them on an annual basis and prepare a post-season situation report for distribution to industry.

Recommendation 4.2

I recommend:

- ***That the Department prepare an annual situation report on the amount of crab sections leaving the province from each licensed facility, the destinations to which it is shipped, and the levels of U.S. imports of all crabmeat from all sources. These data should be analysed to identify trends in the level and destinations of such exports and the relationship to the trend in U.S. crabmeat consumption and the production of it in this province. This annual situation report should be made available to all parts of the industry.***

4.3 PACKING TO PRODUCT SPECIFICATIONS

The Commission was also asked to examine the performance of processing plants in packing crab products to the product specifications of their buyers. Industry employees expressed concerns that the overall quality of crab products may be slipping again in recent years as happened in the mid-1990s. At that time, poor quality practices and workmanship created a market backlash that resulted in several years of lower prices for Newfoundland and Labrador crab. Many (but not all) plants' workers felt more inferior quality crab was being packed into standard packs than in the past, thereby resulting in a general downgrading of product quality standards. Conversely, company officials did not feel this was happening because no processor can afford the revenue loss from significant product rejections.

It is not possible to independently verify these claims. Crab product is shipped very quickly and only real-time inspections can determine if products are packed to buyers' specifications. When this was last a major problem in the mid-1990s, there were numerous reports of product rejected in the marketplace. There are no similar reports at this time from any sources. The Canadian Food Inspection Agency (CFIA) was contacted frequently by dissatisfied buyers in the mid-1990s, and then detected many processing problems through special in-plant inspections. This is not the case today as the Agency has no negative reports from buyers and has seen no problem products in the plants as in the mid-1990s. A special final product inspection initiative of the DFA during the season also did not identify any unacceptable product.

The crab market is now a seller's rather than a buyer's market. When an item is in short supply, as snow crab has been since 2000, buyers tend to take lesser quality products because they have no other alternative. Buyers then often will expand their quality specifications to accept more marginal product. This is reported to have occurred over the 2001-2003 period. When the market for Newfoundland and Labrador meat first declined, dark shell or broken crab were apparently added to the standard section packs, resulting in complaints from buyers in 2000 and 2001. In 2002, a secondary market for broken and dirty sections developed that allowed producers to pack and sell such crab separately and maintain higher quality in their standard packs. This secondary market for dirty or broken sections re-established good customer perception of the quality of Newfoundland and Labrador crab.

However, the Crab Market Report of July 18, 2003 prepared by John Sackton for FANL and FFAW/CAW states: "*several buyers mentioning a decline in quality over the past few weeks.*" And "*....which has meant in some cases salting cases with a few dark shelled crab.*" Also "*At the same time that there appears to be some short cuts being taken on quality, buyers say it is impossible to purchase a load of No. 2 crab. Some buyers would like to see second quality sections segregated and sold as No. 2 product, even if they are not picked for meat.*" And "*right now, several buyers feel it (quality grading) has slipped a little.*" This may have been another result of the chaotic first part of this year's crab season.

All of the above appears to explain some of the observations reported in meetings with industry participants. The analysis of the changes in the snow crabmeat market shows a connection to the decline in that activity, and the emergence of a lower grade pack of crab below that acceptable in standard packages. The early season problems of 2003 also seem to have resurrected some of the poor practices of the past in this processing activity which are not unlike similar past occurrences in capelin processing

The most common proposal for solving this possible problem was to place government inspectors in the plants on a full-time basis. The other was to have plant Quality Control personnel meet some government established certification and for these individuals to be independent monitors of production at processors' expense. While company officials did not think such measures were necessary, most expressed the view that government inspectors would be welcome in their plants to give independent proof of the quality standards of their output.

These product standards are set by each individual buyer and not by government regulations. Government has not inspected for quality grade standards since the days of regulated salted and pickled fish processing. Government-conducted final product inspections are only undertaken now (and then by CFIA personnel) when Inspection Certificates are required for certain non-U.S. markets. These Certificates do not verify packing to the buyers' product specifications. They certify only that product is of acceptable quality, labelling is correct, general food safety standards have been adhered to, and all required practices and processes are followed.

It is highly unlikely governments could be convinced to place inspectors in processing plants to ensure production to the many specifications of numerous different buyers. To do so properly would be a regulatory nightmare. The basic mandate of fish inspection, both federally and provincially, is to ensure food safety is achieved, not to ensure the performance of plants in producing what their buyers have ordered. The latter is considered, and rightly so, a commercial responsibility where processors are rewarded or penalised by the market place. This occurs through rejection of product not up to buyers' standards, or lower prices if a processor does not establish a quality reputation.

None of this issue is about crab that is unsafe to eat. This is an issue of perception as to the degree to which production practices are slipping in relation to the product specifications of buyers. This is a debate over product grade quality as opposed to food safety. It also seems to indicate a certain lack of discipline in some parts of the industry that has still not learned from past market reactions to similar practices. The extent to which these activities may have occurred this season and the possible eventual backlash remains to be seen.

My conclusion is that all this indicates at least some form of production and marketing monitoring to identify such developments at an early stage would be very useful. An early warning system that involves DFA personnel keeping a watching brief on developments in processing and marketing activity is not difficult to institute. Such an approach would head off needless concerns and wrong signals to the marketplace as well as keep DFA management officials up to date on such developments. A quite word, if necessary, with industry leaders would alert all concerned to the emergence of a possible problem and prevent misinterpretations from arising.

Recommendation 4.3

I recommend:

- ***That the Department institute an in-season monitoring of developments in processing and marketing activities that provides an early warning system for quality standards problems. This should include "heads-up" feedback from Regional Inspection staff and regular and targeted market intelligence reports. The***

Departmental executive should make this check-up a regular feature of industry monitoring

- ***If this monitoring indicates these practises are continuing, the use of licence suspensions and/or the introduction of generic packing practises should be pursued.***

4.4 CRAB PRICE DISPARITIES

The Commission's Terms of Reference also called for an assessment of the extent to which, and reasons why, landed prices for snow crab are different in Newfoundland and Labrador than other provinces. This matter has been raised many times in the past in relation to this and other species. This section will update the issue, in some detail, in terms of the current extent of the disparity and some of the current causal factors for it. Past assessments of this issue will be reviewed first and then the details of the Commission's review will be presented. Commission staff prepared the latter with input from an outside contractor.

4.4.1 Historical Perspective

In the late 1970s to the mid-1980s, the gap in the ex-vessel price of snow crab in Newfoundland and Labrador with the Maritimes and Quebec was relatively small because all regions produced mostly crabmeat for the U.S. market. Circumstances changed in 1987 when landings in the Gulf dropped by half and processors there shifted to section production to meet the then increasing demand from Japan. The gap in landed prices grew because of this market shift and the increased competition in the Gulf for raw material. Newfoundland and Labrador processors were effectively prevented from entering the section market until 1993 when the regulatory 15 percent limit on output of that product was waived.

The first formal review of this price disparity issue was undertaken in that year by Gardner Pinfold Consulting Economists Limited for the provincial Department of Fisheries. Their final report, **"The Impact of Newfoundland Processing and Licensing Regulations on the Landed Price for Snow Crab"** was completed before the 15% regulatory limit was removed. The report identified five factors that contributed to the Newfoundland and Labrador - Gulf price gap at that time:

- **Physical Characteristics of Crab:** Newfoundland and Labrador crab was smaller, not as clean and lacked the bright reddish-orange colour of Gulf crab. The high-end Japanese market preferred Gulf crab. Gulf processors received as much as $2.50/lb more in the Japanese market for those premium sections.

- **Provincial Licensing Regulations**: The restriction on shipping live crab out of the province limited competition for the resource and put downward pressure on prices offered to harvesters. In addition, the province produced mainly crabmeat (high-cost, low margin) while Maritime-based companies produced sections (relatively higher margin). Companies in the Maritimes were in a position to pay more than Newfoundland and Labrador companies.

- **Provincial Processing Regulations**: The regulations limiting the range of products Newfoundland and Labrador companies could produce affected the price of raw material. Up to 1993, only 15 percent of a company's total production could be sold in semi-processed form (e.g. sections). In any event, local processors had not been producing the maximum allowed amounts of sections up to that time.

- **Production Costs:** Hourly wage rates were some 20-40% higher in Newfoundland and Labrador and the amount of labour to produce sections was higher because of the additional work required in cleaning crab (i.e. barnacles/leech eggs).

- **Harvesting Conditions:** Timing, speed and conditions of harvesting were different in Newfoundland and Labrador than in the Maritimes and Quebec. In this province, increased fishing activity by the Supplementary fleet and competitive fishing quotas caused crab to be caught in shorter periods. Gluts resulted in processing delays and quality problems. Increased volumes of "soft-shell" crab caught during summer months and poor handling practices contributed to lower yields and the ability of processors to produce other than a limited range of products.

The 1998 report prepared by the "**Task Force on Fish/Crab Price Settlement Mechanisms in the Fishing Industry Collective Bargaining Act"** devoted a full chapter to this subject and made the following key observations:

- In 1992, the ex-vessel price in New Brunswick and Alaska were $0.64 and $0.26 per pound higher than in Newfoundland and Labrador. Similarly, in 1994, 1995 and 1996, the average annual prices in New Brunswick and Alaska exceeded Newfoundland and Labrador by $1.10 and $0.65 per pound, respectively. Because New Brunswick and Newfoundland and Labrador processors marketed different crab products in different markets, it was unfair to compare those ex-vessel prices. However, since Alaska and Newfoundland and Labrador were competing in the same U.S. market with similar products it felt that price gap should be narrowed.

- The Task Force reviewed the price disparity factors outlined in the Gardner Pinfold report of 1993 and drew the following conclusions:
    - Intrinsic crab characteristics still accounts for price differences;
    - No conclusive determination can be made on whether the export restriction on unprocessed crab is a major factor in price disparity;
    - Government restrictions on volumes of semi-processed crab were relaxed in 1993 and therefore no longer had a bearing on price disparity;
    - Newfoundland and Labrador wage rates were higher, but offsetting economies of scale in the province and higher "cryogenic" freezing costs in the Maritimes made it difficult to determine if production costs were a major factor;
    - Quality was felt to be the second biggest factor, after intrinsic characteristics, in explaining price differentials. Timing and speed of harvest along with poor handling and treatment of crab contributed to quality deterioration;
    - Restriction of competition because of the limited number of plants was felt to be no longer an issue given the changes in licensing policy since 1996. However, financial dependence of harvesters on processors was considered a major issue.

- The Task Force also believed that the development of an auction system could play an important role in improving quality and allowing harvesters to receive maximum value for their catch.

The Task Force made the following conclusion on the issue as of 1998: "*The Task Force finds that the main reasons for the price differences between prices paid in Newfoundland and Labrador and prices paid in the other crab fishing provinces and countries, in order of importance, are as follows:*

- *the intrinsic characteristics of our crab, compared with other areas;*
- *quality differences; and*
- *competitive factors."*

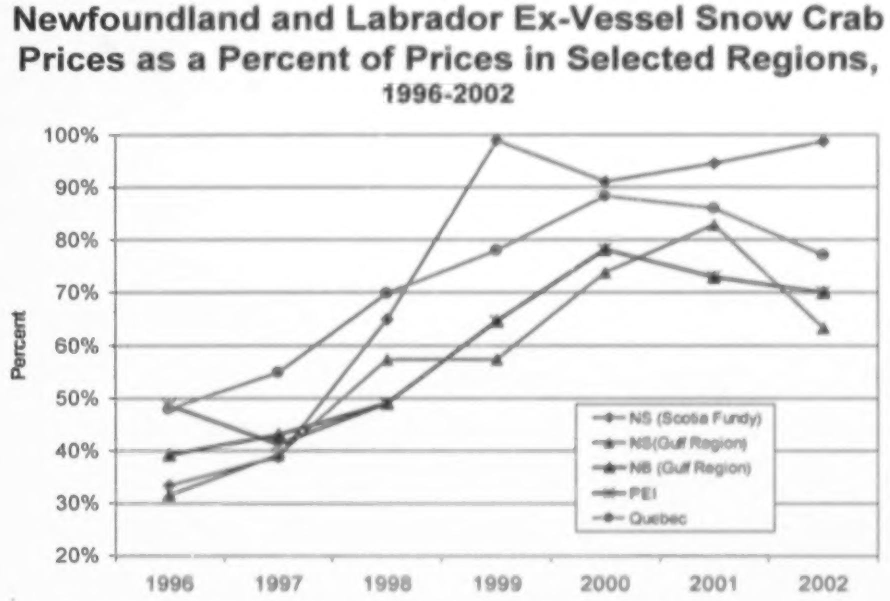
4.4.2 Recent Changes

Some of the factors identified by the 1993 Gardner Pinfold and the 1998 Task Force reports still play a role while some significant new developments have emerged in this issue of price disparity. The most relevant is that differentials appear to have narrowed considerably since the mid-1990s in both ex-vessel and final market prices or returns. The province has become the single largest snow crab producing area in the world since the decline in the Alaskan fishery. That decline also opened up the U.S. section market to Atlantic processors, which in turn reduced the significance of the Japanese demand. The Commission has been told that excess processing capacity has resulted in strong competition for raw material supplies in all areas.

Since the early 1990s, additional fleets and areas have gained access to crab fishing in the Gulf, eastern Cape Breton and the Lower North Shore (LNS) of Quebec. The price disparity comparison is now no longer one between prices in the southern Gulf fishery and this province. There are now as many as five comparisons to Newfoundland and Labrador prices that can be drawn.

In the last few years, Newfoundland and Labrador processors have increased their presence in the New Brunswick and Nova Scotia snow crab industries by acquiring and upgrading a number of plants to Newfoundland and Labrador crab production standards. After these investments, they have been aggressive in acquiring crab for these modernised operations by offering higher prices to lure harvesters away from their traditional buyers. This is in the area where port prices were already the highest in the Atlantic.

Figure 4.1 shows DFO official published data on ex-vessel crab prices in Newfoundland and Labrador as a percentage of those in other crab fishing areas. These data show a declining gap in prices in all cases from the mid-1990s up to 2002. Data are not yet available for 2003, but reports that prices in the Maritimes increased considerably this year might mean that the closing of the price gap may have halted. The prices had improved from being 30 to 50 percent of those in other provinces to levels in the range of 60+ to almost 100 percent of those received elsewhere.



Source: Department of Fisheries and Oceans: Fish Processing Policy Review Commission

Figure 4.1

The largest gap still exists between Newfoundland and Labrador and the southern Gulf crab fisheries in Nova Scotia, Prince Edward Island, and New Brunswick. The price gap is narrower between Newfoundland and Labrador and all of Quebec which includes the Area 12 and the LNS fisheries. Price disparity with the eastern Cape Breton fishing area of Nova Scotia appears virtually eliminated in these data. These disparities and similarities mirror differences and similarities in the physical characteristics and market destinations of crab from each of these areas.

As well, the published ex-vessel prices shown in Figure 4.1 may not accurately reflect the real differences in ex-vessel prices for snow crab from one region to another. These data are estimated and collected in different ways in each region. The data for Newfoundland and Labrador are based primarily on the minimal negotiated price (excluding bonus payments) while those for the other regions are based on price surveys of harvesters and processors. This means the Newfoundland and Labrador ex-vessel prices understate the final or actual prices received to the extent that data for the other areas of the Atlantic represent the final landed values. The disparities apparent from Figure 4.1 may then be much less, non-existent, or even in favour of Newfoundland and Labrador port prices in some cases.

4.4.3 CONTINUING PRICE DISPARITY FACTORS

The remainder of this section will attempt to describe and assess some of the factors that influence the price disparities that remain. The Commission believes some 15 factors affect snow crab price levels throughout Atlantic Canada. These can work to increase or decrease the differences in port prices in various fishing areas. These factors will be reviewed in the rough order of their influence on differences in crab prices.

Bonuses/Premium Payments: Setting prices in the fishing industry is more complex and less straightforward than any other industry. The price of the fish itself is rarely the only element of the final price paid. In addition to the range of services (e.g. bait, ice, offloading, financing, etc.) that processors provide harvesters, the use of bonuses or premium payments has become common practice and a cost of doing business. The levels and forms of these payments vary between provinces, species, vessels and processing plants. Therefore, it is not always possible to determine the final average price paid with any degree of confidence because of the wide range and the private nature of these payments.

The complexity in price payments is related to the level of competition among processors in securing raw material. In Newfoundland and Labrador, industry sources have indicated that bonuses have ranged from $0.20/lb to as high as $1.00/lb. As well, the purchase of crab usually requires that processors purchase all other species landed by crab harvesters throughout the season. These harvesters often receive higher prices for these species than they may otherwise be able to obtain. The only possible conclusion is that the Newfoundland and Labrador published prices for crab are definitely the minimum received and do not reflect the average or total payment outcomes for crab harvesters.

Market Destinations: Until 1993, Newfoundland and Labrador was primarily a crabmeat producer for the U.S. market. With the relaxing of the 15% restriction on sections, processors increased section production to fill the demand that appeared, first in the Japanese market, and then the U.S., because of the collapse of Alaskan crab stocks. Landed price differences evident when the province's output was mainly meat and the Maritimes' mostly sections is understandable. However, when Newfoundland and Labrador processors first produced sections on a large scale, they were unable to obtain the premium prices being received in the Japanese market by Maritime processors of Gulf crab. This was the result of the natural characteristics of Gulf crab versus Newfoundland and Labrador crab. In addition, the Japanese buyers generally preferred gas-frozen crab and local processors were equipped for brine-frozen production. At that time, Maritimes processors were getting more from the marketplace for most of their product. The existence of a premium market return, even if not received for all production, would have an upward effect on all raw material prices.

In recent years, however, this premium segment of the Japanese crab market has declined, as has the general influence of Japanese buyers on the price and demand of crab. More crab sections from all of Atlantic Canada, including more Gulf crab, are now entering the U.S. market. Some Maritimes processors have indicated that because they no longer get the same scale of premium returns from the Japan market, they have shifted more of their production to the U.S. market even though they get very little, if any, premium for the Gulf crab's superior characteristics there. They get some premiums for higher-grade product and larger sections, but, for the most part, U.S. buyers are not as interested in the superior appearance as are Japanese buyers and also prefer smaller sections. In fact, processors in Nova Scotia and New Brunswick have added less expensive brine-freezing systems to their operations to service this U.S. market with mostly their smaller sized sections. The Commission, however, has been unable to determine the actual price premiums, if any, received for those products.

Crab Characteristics: In Atlantic Canada, at least four major crab producing areas can be identified: Newfoundland and Labrador (2J3KLPs4R), Southern Gulf of St. Lawrence (4T), eastern Cape Breton Island (4VW) and the Lower Quebec North Shore (4S). Snow crab populations in these areas, though of the same species, differ in their physical characteristics. The reasons are not well understood but are speculated to be due to environmental and/or genetic factors. Overall, Newfoundland and Labrador crab is smaller and lacks the bright orange-reddish color of Gulf crab (i.e. Crab Fishing Zones 12, 18 and 19 of 4T). It also tends to be "dirtier" which requires additional labour costs for cleaning. Similar characteristics are found in Scotia Fundy crab (4VW) which could explain the narrower gap in ex-vessel prices between that area and this Province. There are claimed differences in the characteristics of crab from different fishing areas of Newfoundland and Labrador that may be reflected in the level of bonus payments because the negotiated price is a minimum applying to all areas.

The marketplace preference for the cleaner and better coloured product and the added production costs of processing dirtier crab clearly would have opposite effects on the final ex-vessel price outcomes. The exact extent of the differences caused by these factors could not be quantified.

Price Setting Systems: Prices in Newfoundland and Labrador for a number of species including crab, are set by collective bargaining. For the last six years, the collective bargaining system has used the Final Offer Selection (FOS) model to set minimum negotiated or arbitrated prices. This minimal price, combined with fierce raw material competition between crab processors, has been a factor in the common use of bonus payments and side deals in the industry. Processors have to offer these payments to secure and retain crab from harvesters.

In the Maritimes, crab prices are established by individual harvesters and processors at the start of the season and often fluctuate on a daily basis. However, the fluctuations from starting prices are reported to be not significant over the course of the season unless there is a major change in the market. The originally agreed prices are higher, leaving very little room for processors to make any side deals, but not necessarily meaning there are none.

The use of commission buyers or "middlemen" in the Maritimes is much more extensive than in this province. These buyers charge processors 30 to 40 cents or more depending on services they provide to harvesters (i.e. delivery of ice/bait, offloading, financing, etc.). Maritimes processors have been historically willing to pay this added cost. They are unable to duplicate the relationships these buyers have developed with harvesters.

This review of crab price disparities is hindered by the fact that the final prices received are effectively private matters and cannot be objectively assessed, let alone even quantified. In some cases, extra purchasing costs, such as use of commission buyers, would be reflected in the survey prices used in those DFO Regions to value landings. These factors would tend to result in higher prices being paid by the processor than might otherwise be the case.

Raw Material Competition: The widely recognized excess capacity in the crab industry throughout Atlantic Canada and Quebec has been a result of a combination of two factors: an increase in the number of licensed plants and increased capacity in individual plants to handle higher volumes of crab during peak landing periods. These factors have led to aggressive competition and price wars that result in zero or negative margins after operating costs. The competition in the Maritimes has become more intense in recent years. In New Brunswick, harvesters who are part owners of plants have even left their own operations to take higher prices being offered by other processors.

The 2003 Gardner Pinfold report on the ***Economics of the Nova Scotia Snow Crab Industry*** suggests the opening time of the snow crab season in Nova Scotia favours processors in both New Brunswick and Newfoundland and Labrador. The seasons in NB and NL are well underway by then and many of the major overhead costs have been covered. This tends to force up raw material prices in Nova Scotia.

That report further suggests that receipted prices may not truly reflect the actual per pound price because non-commercial considerations are in play. The extent of these practices is not known, but it has the potential to understate published prices or total landed value data. While the competition for raw material obviously puts upward pressure on the port price, the unknown extent of such non-commercial practices in all provinces also makes objective comparisons of disparities impossible.

Prohibition on Shipments of Unprocessed Crab: In several meetings with the Commission, some fishermen argued the prohibition on shipping unprocessed crab should be removed and they should have the freedom to ship their crab anywhere they wish. They feel this would give them the highest prices they believe are being paid in the Maritimes. This would probably put some upward pressure on port prices in this province but whether this would be more than is now being achieved through bonus payments is somewhat doubtful. It is also doubtful that if higher prices did result that they would be maintained for very long or over a whole fishing season.

It is clear from Figure 4.1 that the highest prices are definitely paid in the fisheries or areas that have the best crab. Most Newfoundland and Labrador crab does not fall in that category. The capacity of the Maritimes plants is not sufficient to handle the volumes of crab that can be landed by fishermen in this province; oversupply would result and lower prices, not higher, would be paid. The cost, time and distance of transportation would also be a depressing factor on prices of crab brought from this province. These outcomes would seem to be supported by the experience of the few times Newfoundland and Labrador harvesters were permitted to sell their catches outside the province. It is also unrealistic to expect the provincial government to seriously consider removing this restriction when plant workers are so dissatisfied with their working seasons.

Labour Cost Components: After raw material costs, labour is the main component of variable production costs. Average plant workers' wages are generally higher in Newfoundland and Labrador than in the Maritimes. This gap appears to have been consistent over time with rates in Newfoundland and Labrador being 20-40 percent higher than in the Maritimes. In addition, the physical characteristics of Newfoundland and Labrador snow crab means extra labour cost per pound of finished product. It is impossible to quantify the exact differences in this cost component without a major financial analysis of the respective industry operations. However, it stands to reason that when average labour costs per unit of output are higher, for whatever reason, there is less margin available to cover all other costs including the cost of raw material. This would be even more so when the average revenue per unit of output is less for some producers.

Landing Sites and Trucking: There are over 200 landing sites for snow crab in Newfoundland and Labrador. Of these, 75 have annual landings of less than 50,000 lbs with combined landings of only 1.5 million lbs. In other words, this 37% of landing sites accounts for only 1% of total landed volume. The resulting trucking (over both short and long distances) negatively affects quality, mortality and yield. The number of landing sites and amount of trucking is much lower in the Maritimes and Quebec. That indicates lower trucking costs and less pressure on quality, mortality and yields in the other provinces. This is another factor that could work in favour of higher port prices in other provinces.

Product Shipping Costs: Almost all finished crab products going to the U.S. market are trucked all the way. Final product destined for Japan is generally trucked to departure points in the Maritimes. Trucking rates vary for a wide variety of reasons including services provided, volumes, insurance coverage on cargo, fuel surcharges and total business with a single processor. Despite these competitive factors, processors in Newfoundland and Labrador have some additional costs of shipping finished product from a greater distance and by ferry across the Gulf. The Commission's external consultant estimated that the extra trucking costs for a full container to various departure locations throughout Atlantic Canada range from $500 to $750 more from Newfoundland and Labrador compared to Nova Scotia and New Brunswick. This would be approximately $0.01 to $0.02 per pound.

Dockside Grading: A dockside grading program in Newfoundland and Labrador determines the price paid harvesters for a number of species, including snow crab. Processors pay the annual fees of this program. These vary by species; the snow crab grading fee is about 1.3 cents per pound. Similar grading programs do not exist in the other provinces.

Financing of Harvesters: The disbandment of the Fisheries Loan Board in Newfoundland and Labrador has resulted in an increased reliance on processors for financing of vessels, equipment and operating capital. Some harvesters have openly welcomed this while others have been less receptive to it as a possible loss of independence. These financial arrangements between harvesters and processors are confidential and private as are resulting commercial operating arrangements. Therefore, it is difficult to determine whether, and to what extent, these add to the cost of acquiring and securing raw material or adversely affect the final prices paid. It is unlikely that such arrangements are costless in either regard. Comments from processors indicate the financing of harvesters is a definite additional business cost. But the coincidental complaints about the unaffordable levels to which raw material prices are forced does not indicate it has had much negative pressure on port prices. Nonetheless, it is also possible that this dependence on processor financing could affect the final price paid to individual harvesters.

Table 4.2
Workers Compensation Contributions for Fish Harvesters, 1999-2002

Year	Value of Fish Purchases (rounded value)	Rate/ $100 of Fish Purchased	WC Contributions
1999	$405,000,000	$2.34	$ 9,477,000
2000	$440,000,000	$2.43	$10,692,000
2001	$362,000,000	$2.43	$ 8,796,600
2002	$404,000,000	$2.43	$ 9,817,200

Source: Workplace Health, Safety and Compensation Commission (WHSCC)

The same degree of financing of crab harvesters by processors does not appear to take place in the other provinces. Some processors there indicated it is not uncommon to provide some interim financing to harvesters for start-up costs at the beginning of each season. The limited financial arrangements between processors and harvesters in the other provinces could be attributed to the existence of government loan boards. Despite the lack of a government loan board in Newfoundland and Labrador, there are still financial programs available to harvesters. One is the Fisheries Loan Guarantee Program offered by the provincial government in partnership with the chartered banks. Another is the Canada Small Business Financing Program, a federal program providing an 85% guarantee on a loan or lease (maximum of $250,000 financing) through a financial institution or leasing company.

Workers Compensation for Harvesters: Newfoundland and Labrador processors, unlike those in the Maritimes or Quebec, are required to pay Workers Compensation (WC) at a specified rate per $100 of fish purchased. The rate for 2003 was $2.33. The annual rate assessed depends on claims from the harvesting sector because revenue has to cover the claims paid to harvesters. Table 4.2 shows the annual total value of fish purchases and total WC contributions for 1999 to 2002 by the Newfoundland and Labrador processing sector.

Table 4. 3
Workers Compensation Rates (per $100 of Payroll), by Province, 1999-2003

Year	Nfld & Lab	N. S.	N.B.	P.E.I.	Quebec
1999	3.76	3.96	1.42	3.17	6.24
2000	4.20	3.44	1.47	3.20	6.57
2001	4.20	3.21	1.54	3.68	6.15
2002	5.04	2.98	2.13	3.93	6.88
2003	6.01	3.58	2.56	4.21	6.11

Source: Finance departments of respective provincial governments.

The WHSCC does not identify contributions by any particular species, so it is impossible to accurately determine the contributions attributable to crab purchases. Based on a crab landed value of approximately $230 million, the contribution for crab purchases for 2002 would have been approximately $5.4 million. These contributions have a net revenue effect on harvesters in that they are a benefit in this province and a cost in the others.

Workers Compensation for Plant Workers: Processors in all provinces contribute to a workers' compensation plan for plant employees. Table 4.3 shows the different rates assessed in the various provinces. While rates vary from year to year depending on claims, all Provinces have an incentive system called "Experience Rating" to encourage safe work practices. Its application varies from province to province, but individual company's rates depend on whether claims in their operation are above or below the industry average. Table 4.3 indicates that, with the exception of Quebec, the 2003 rates assessed in Newfoundland and Labrador are 1.4 to 2.3 times higher than the other provinces. Workers' Compensation for employees contributes to a higher overall labour cost for processors here than in the Maritimes.

Payroll Tax: The payroll tax is unique to Newfoundland and Labrador and Quebec. This tax has been assessed since 1990 on employers whose annual employee remuneration exceeds "predetermined exemption thresholds". Fifty-four fish processors in this province are registered with the Department of Finance for payroll tax assessment. In 2002, these processors collectively paid over $2.6 million in payroll taxes. This would be based on all "salaries, wages, bonuses, commissions and any other amounts which constitute employment income as per the Income Tax Act." Even if all of this were assessed only on crab processing payrolls, it would amount to very little in terms of per pound costs of crab processing compared to the other factors involved.

Other Services: Offloading is handled similarly in all provinces where local harbour authorities collect fees for the use of wharves. Processors or their agents (in some cases) normally arrange and pay for offloading of crab. In the Maritimes, the commission buyers provide this service, but processors indirectly pay for it. Provision of ice by processors appears to be common practice in all provinces and is either offered free of charge or at a nominal charge. Bait is supplied by processors in all provinces, but usually at cost to the harvester. The use of squid as bait is more common in Newfoundland and Labrador. This can be more costly particularly as it is seldom available locally anymore and must be imported and often stored for long periods.

4.4.4 CONCLUSION

The large number of factors that have been evaluated in this section contribute in various ways to disparities in ex-vessel prices of snow crab in Newfoundland and Labrador, the Maritimes and Quebec. Some of the factors influence the final price level to different degrees in different locations. Most factors have indeterminable positive or negative impacts. The varying industry structures and different processor-harvester arrangements cause some of the price gaps. Costs that are unique to different areas have similar divergent effects on the level of port price. Some production inputs and general business costs are somewhat higher in Newfoundland and Labrador but the processing sector seems to have found technological means of overcoming many of them.

In the final analysis, the available data show, that up to 2002, the disparities in published official prices for crab were narrowing in some cases and virtually disappearing in others. If the ranges of reputed premium payments are added in, averages landed prices for crab in this province would have exceed those paid in some other areas of Atlantic Canada. The area with which a disparity may still remain (southern Gulf of St. Lawrence – 4T) is the production area accepted as having the "best" crab in terms of overall size and appearance. The continuing sale of some premium product into the now smaller Japanese niche market and lower labour processing costs clearly still creates port market conditions that produce higher average prices for all crab landings made from that area. Whether the higher prices paid in the Maritimes in 2003 are sustainable is also an unknown; some Maritime processors believe they are not.

The data available shows a substantial increase over the past 5 years in the negotiated price in Newfoundland and Labrador relative to the published final prices in other regions. Some of this has been due to the bargaining under the now defunct FOS model, as well as overall industry competition and technological efficiency. A cursory look at cod prices reveals an outcome similar to crab has occurred in recent years. However, Maritimes processors also have some competitive advantages in cod that means port prices here may never exactly match. This is primarily because mainland cod processors can ship quickly and from shorter distances into a high priced U.S. fresh market. This market affect can have the same upward pressure on the average port price of cod as seems to exist for Gulf crab.

I cannot conclude that the remaining price disparities are the fault of either government policy or industry actions. In this instance, there is really no policy conclusion to be drawn or any action by government that needs to be recommended. Therefore, I make neither. In the final analysis, this is a matter for collective bargaining.

CH. 5 QUALITY ASSURANCE PROGRAM

My Terms of Reference asked me to evaluate the Department of Fisheries and Aquaculture's Quality Assurance Program (QAP). To assist in this evaluation, an outside expert was hired to review the program. The review included an assessment of the program's relevance, industry acceptance, and overall effectiveness. It included interviews with harvesters, processors, inspectors and Departmental staff. As well, a market review was conducted and grading data was analysed. The end result was a comprehensive profile and assessment of the program. This research and the input received in consultation meetings were used in the Commission's evaluation of the QAP.

The Quality Assurance Program was introduced by the Department of Fisheries and Aquaculture in 1996 and was an expansion of the province's inspection activities. The program was initiated in response to concerns raised by the marketplace about product quality. The problem was not whether the product was safe to eat but whether the industry was maximizing the earnings from seafood products.

The program is designed to monitor and measure the quality of fish landed, transported, processed, and, to a lesser extent, marketed. It includes onsite field inspections as well as the promotion of quality through training programs. Inspections are conducted on landings at dockside, in transit and in the holding rooms of plants. As well, inspectors monitor the physical appearance of plants. Thirty inspectors are located in five regional offices throughout the province.

The Program's main focus has been on ensuring adequate handling and holding methods for raw material at dockside. The primary inspection protocols include temperature minimums, liveliness of crab, height restrictions for transporting and storing raw material, and ice requirements. These protocols will be discussed in more detail later.

It became evident early in the evaluation of the Quality Assurance Program that the industry and government have made substantial progress in improving product quality over the past seven years. This progress has resulted in a substantial increase in product value and the quality reputation of the industry has improved substantially. For the most part, our crab products have become second to none and the quality of our shrimp and groundfish products have improved. There is, however, room for further growth. There remains a loss in value that could be realized with changes in product handling, transportation, and holding practices.

5.1 PROGRAM OBJECTIVES

The QAP objectives provide the basis for the Department's overall inspection efforts. The programs' three main objectives are to:

- Ensure Consistent Quality;
- Enhance the Industry's Competitive Position in the Marketplace;
- Maximize the Value of Fish Products to All Stakeholders.

The first objective of the program is to *Ensure Consistent Quality*. Consistent quality is important to the marketplace. Buyers like to know what they can expect from producers. This does not necessarily mean that product is of the best quality; only that there is a predictable level of quality. The quality of a product is dependent on a number of factors directly related to the stages in the harvesting and production process.

The first factor is the intrinsic quality of the fish/creature itself. This intrinsic quality relates to the natural characteristics of the animal and the environmental conditions at the time of harvest. For example, the flesh of cod is best, and the yield greatest, after the fish has recovered from spawning and has fed well. Crab have different characteristics including size, color and yield depending on the area caught and the time of year.

The next quality factor is maintaining this intrinsic quality until the product is processed. This requires proper handling from the time the fish enters the fishing gear to when it reaches the consumer. This often requires retrieving the animal quickly and cooling it as soon as possible. Proper handling and storage techniques help ensure no degradation of the intrinsic characteristics occurs. This often means the fish has to be processed within a certain period using proper techniques to maintain or even improve its look or texture.

The objective of achieving consistent quality product is not sufficient in and of itself. The objective should be to maintain a consistently high level of product quality throughout the harvesting and production process.

The next objective, to *Enhance the Industry's Competitive Position in the Marketplace,* is not a natural extension of ensuring product quality. However, it provides a limiting parameter on the measures that should be taken. An extreme example would be a regulation that makes the harvest and production of a product uneconomic or firms uncompetitive. Maintaining a high level of quality should increase the returns to the industry, but government must be cognisant of all the impacts any quality related regulations may have on firms.

The objective, to *Maximize the Value of Fish Products to All Stakeholders* requires that government take measures to ensure the greatest return is realized from marine resources. Improving the quality of products landed for processing is one such method. This is a key objective for the quality program and provides the underlying rationale for the program's focusing beyond basic food safety issues.

The objectives of the program remain relevant and only slight modifications are needed. The objective to ensure consistent quality should be revised to ensure consistently high quality.

5.2 PROGRAM OVERVIEW

The QAP is delivered by the Department of Fisheries and Aquaculture's field staff. The Assistant Deputy Minister for Fisheries administers the program through five regional directors and a director of licensing and inspection. Some staff participating in the program are seasonal workers, usually hired from April/May to October/November. Inspectors in each region are assigned specific geographical areas of responsibility based on the number of plants, the number of landing sites and the commuting distances.

The number of landing sites and their geographical dispersion impacts on the effectiveness of the program. In 2002, there were 355 landing ports for crab, shrimp and cod alone. The greatest number of landing sites were found in the Western Region. This area also had the greatest number of inspections (See Table 5.1). The number of inspectors relative to the number of landing sites and landed weight is quite low and this needs to be improved.

As well, regional differences must be taken into consideration in program design. The Avalon Region, for example, has almost 29 percent of landings but only 23 percent of inspectors. However, this region has one of the lowest number of sites relative to the number of inspectors. This suggests that the Department should review the deployment of inspectors to determine if they are being utilized in the most effective manner possible.

Table 5.1
Comparison of Landings and Inspections by Region, 2002

			Landings (million lbs)		# of Inspections	
Region	**# Landings Sites (1)**	**# Inspectors**	**2002**	**% of Total**	**2002**	**% of Total**
Avalon	69	7 (23.3%)	78.5	28.7%	1,127	20.1%
Central	94	9 (30.0%)	51.9	19.0%	1,485	26.5%
Eastern	78	5 (16.7%)	59.2	21.7%	1,101	19.6%
Western	98	7 (23.3%)	74.1	27.1%	1,704	30.4%
Labrador	16	2 (6.7%)	9.5	3.5%	193	3.4%
Total	355	30 (100.0%)	273.3	100.0%	5,610	100.0%

Source: DFA; DFO

Note: (1) Total different landing sites in region for crab, shrimp and cod

The majority of inspections occur from May to September, with peak inspections occurring in July. Inspections focus on live shellfish assessments; dockside grade standards; the presence of tainted, decomposed, or unwholesome fish; and general inspections for stowage depth and core temperatures. In 2002, 6,667 inspections were undertaken in the province. Of these, 5,610 involved inspections on crab (1,921), shrimp (611), cod (1,826) and other species (1,252). The additional 1,057 were inspections of seafood shipments leaving the province at Port aux Basques.

The number of inspections by type are listed in Table 5.2. The number of live shellfish assessments has declined substantially from almost 1,600 to about 750. This decline is due in part to inspectors focusing their assessments on problem loads as reported by TAVEL, a private sector grading company. Under the current system, TAVEL is required to inform the Department if a load of product is problematic. If possible, the product is then inspected at the processing facility.

Table 5.2
Summary of Inspections by Inspection Type, 1999-2002

Year	Live Shellfish Assessment	Dockside Grading Standard	Tainted Decomposed Unwholesome		General Inspections
			Number	# Acceptable	
1999	1,593	575	2,020	1,980	281
2000	615	913	2,241	2,203	1,249
2001	576	463	1,191	1,168	2,889
2002	746	756	1,405	1,382	2,638

Source: DFA; QAP Evaluation Report; Fish Processing Policy Review Commission

There has also been a substantial drop in the number of inspections for tainted, decomposed, and unwholesome (TDU). These inspections are down 30 percent from 1999 to 2002. At the same time, there has been an increase in the number of general inspections. These inspections focus on depth and temperature and as such provide the least amount of information on product quality.

The number of inspections by type indicates there has been a trend to the least rigorous inspection types over the past two years. The focus of inspectors has been on general inspections over the live shellfish assessments or TDU. It is not clear why this trend has developed.

5.3 INDUSTRY ASSESSMENT/CONSULTATIONS

In its consultations, the Commission was consistently told that the QAP has been effective in improving the quality of fish landed and processed. Some individuals indicated there was a need for an expanded role of the inspectors and a greater presence was needed in processing facilities. Others highlighted weaknesses in the program ranging from lack of training for inspectors to not enough of a presence on weekends and evenings. In some meetings, harvesters often seemed confused as to the difference between QAP and dockside grading requirements. Inspectors audit the latter and conduct investigations where alerted by the grading company to problem lots.

5.3.1 Harvester's Comments

Harvesters indicated the program had resulted in a substantial positive change in how they handle fish. This has happened from a combination of training and actual vessel inspections. Shortcomings of the program include a lack of training in raw product inspection for inspectors, especially for crab and shrimp. Discrepancies occur between TAVEL grading results and DFA. This can be quite significant and result in a substantial reduction in money received for final product. Harvesters view this as being unfair.

In addition, they feel there should be a concentrated effort directed towards problem vessels rather than repeat visits to captains who always deliver top quality. Harvesters also indicated there has been a general decline in the numbers of inspections since 1999.

Many harvesters felt that despite their good quality handling and holding practices, quality is often negatively impacted by offloading, trucking, and handling at the plant. They see the need for increased education of vessel crews and offloading personnel in proper handling and holding methods. Furthermore, it was suggested that transport trucks do not always maintain adequate refrigeration temperatures and the long distances and times travelled results in downgraded product quality.

There was a call for a greater presence of inspectors at processing facilities. Increased inspections at processing plants would ensure companies are processing raw material in a reasonable amount of time. This also would prevent quality deterioration.

Court charges under the program have not been effective according to a large proportion of harvesters consulted. A ticketing system was proposed to match the punishment with the crime. It was suggested that the severity of the penalty should increase for repeat offenders.

In general, harvesters felt that the existing act and regulations needed to be improved. Many of the provisions are not relevant for today's modern shellfish industry. There was a suggestion that the minimum quality standards are not sufficient given market demands and quality requirements. Additional training is required for inspectors especially in the shrimp fishery. Additional resources are also required to ensure adequate coverage of the entire province.

5.3.2 Processing Sector Comments

Both plant workers and company management provided comments on the program. Plant workers indicated that the program has been effective in improving the quality of the raw material. In general, plant workers felt the quality of raw material reaching plants had improved since the program was implemented. They indicated there should be an increased inspection presence at processing facilities. This could include inspectors on site at all times, increased frequency of inspections or even a move towards finished product inspections.

Plant workers also expressed the view that the plant's Quality Control personnel should not be part of management. There were even suggestions for a government certification program and expanded authority for QC personnel.

Processing companies generally support the Quality Assurance Program. Most companies indicated the program has been effective and has played a significant role in improving the overall quality of raw material. Operators expressed the opinion that the most appropriate role for provincial inspectors is at dockside as opposed to plant holding rooms and processing areas.

Processors suggested that inspection officers must be willing to act immediately at dockside when inspections indicate poor quality. Consultations with, and advice to, harvesters is critical to delivery of high quality raw material. Shrimp and crab quality currently offers the greatest challenges.

Processors point out that final product processing is supervized and regulated by the Canadian Food Inspection Agency in conjunction with in-plant quality control staff and markets. They view this as sufficient and do not see a requirement for QAP to be extended to final product inspection. This would also avoid any unnecessary duplication of services.

Shortcomings of the program include major inconsistencies in grading results between TAVEL and QAP inspectors. This has resulted in many arguments between harvesters and processors over final compensation determination. As well, processors indicated there are serious deficiencies in the geographical distribution of inspections. In some cases, companies are inspected as frequently as several times per week, while other companies may only see DFA inspectors two or three times per season.

There were suggestions from processors that additional training was required for inspectors. The training intensity should be comparable to that of a CFIA inspector or a Food Technology Diploma graduate.

There appeared to be a consensus that a combination of laying charges and a ticketing system is appropriate for violations by plants. A ticket system is suitable for minor violations, while the courts may be used for serious offences and repeat offenders. The right of a company to defend a ticket or charge in court should not be removed regardless of the offence. Some expressed concerns that a ticketing system alone will not provide a strong enough deterrent for harvesters.

5.3.3 Comments By Inspectors

The QAP inspectors consider their role to be the enforcing of raw material quality standards to ensure top quality. Since the program's inception, inspectors have witnessed significant improvements in quality, handling practices and the overall attitude towards seafood handling. They feel that additional training is now required, especially for inspection of Northern Shrimp.

Inspectors indicate that limited time is available for actual inspections because of a variety of other responsibilities. Administrative duties are time consuming because existing reporting protocols and court challenges take up a considerable amount of time. There is an insufficient number of officers given the large number of landing sites and geographic size of the province. As well, the standard work week, and the no overtime policy, significantly reduce inspection frequency on weekends when landings are often high. Inspectors expressed the opinion that harvesters deliberately land when they know inspectors are not available.

The program requires more preventive policies to avoid court charges being dropped as a result of technicalities. These include lack of certified maintenance and calibration of equipment used by inspectors (i.e. Crab Life Detector). Finally, a number of the QAP inspectors feel that the program should be refocused mainly on raw material inspection at dockside. Since the program began, it was successful because of efforts at dockside. Inspectors feel this is where it will continue to be most effective in the future. Some expressed the opinion that the program should be expanded to include finished product inspections.

5.4 REVIEW OF PROGRAM PROTOCOLS

The quality protocols administered by inspectors are contained in the *Fish Inspection Act and Regulations.* Inspectors also enforce quality initiatives of collective agreements which the Department includes as conditions of processing licences.

Most of the grade standards currently used originated in the groundfish fishery of the early 1980s. Some of the crab and shrimp grading standards have been adopted from a variety of sources that include the Canadian Food Inspection Agency, TAVEL Ltd., and work by the Department of Fisheries and Aquaculture.

The Quality Assurance Program includes a Quality Working Group consisting of FFAW/CAW, fish processors, Canadian Food Inspection Agency and the Department of Fisheries and Aquaculture. Meetings, however, have been extremely infrequent. The lack of such consultations clearly affects the program's ability to react to changing industry circumstances.

The quality standards now administered by the Department cannot always ensure raw material is of the highest quality possible. Each species require different standards because of its different biological, microbial and physical conditions. The current program is applying approaches developed for groundfish to all species including shellfish and pelagics. For example, current stacking heights (no more that 90 cm) and core (4°C or less) temperature requirements do not appear to be the best standards for shrimp. The practice in other jurisdictions suggests that shrimp stacking heights should be less than 90 cm when bulk stacked. (Most other producing areas use boxing and refrigerated fish holds.) In addition, the core temperature standards in these other areas are less than 2°C and as close to 0°C as possible. Furthermore, QAP has no objective tests for shrimp quality. Inspectors are not able to determine the quality of shrimp other than whether or not it is tainted or severely decomposed.

Regulations do not deal with problems associated with physical damage to the catch because of improper handling practices. While crab inspections indicate leg loss, there is no investigation of the cause or identification of a specific improper handling practice.

Many vessels are adopting various chilling and cooling mechanisms including chill units, refrigerated seawater and recycled sea water. Regulations do not cover adequate maintenance and care of such systems to avoid bacterial or contamination problems. Both the CFIA and the provincial regulations provide for proper maintenance of in-plant equipment, however, little attention has been given to holding equipment on vessels.

In general, the quality practice regulations under the Fish Inspection Act are not the most suitable for achieving the QAP objectives of maximizing the value of the resource or of attaining the highest quality possible. Many of the regulations ultimately only ensure food safety. There is a need to develop new standards that are designed to ensure the quality of the product is more than just acceptable. This requires the development of species-specific protocols for stowage, handling, icing, transporting fish and measuring fish quality. Such new standards can only be developed in consultation with industry.

5.5 RELATIONSHIPS TO OTHER PROGRAMS

Several agencies and programs, in addition to DFA, operating in the province have a role in fish inspection. The Canadian Food Inspection Agency oversees the quality management programs of plants that export product. The Dockside Grading Program (DGP), established by industry collective agreements, is administered by TAVEL Ltd. and a Dockside Monitoring Program (DMP) is required by DFO to monitor catch quotas.

The CFIA oversees their Quality Management Program (QMP-R) as part of a condition of registration for plants exporting seafood. The DFA inspection program focuses on activity from the holding room back to the dockside. On occasion, the province's inspectors conduct inspections in processing facilities, however, these are usually special case circumstances. Generally, there are no perceived conflicts between the two agencies. The split in roles complements each department's mandate. DFA finishes at the raw material phase, while CFIA, under the QMP-R ensures safe final products.

The Department and CFIA have an informal agreement on their respective roles. Both parties have agreed that DFA would inspect raw material only and leave the remainder to the plant's own QMP-R, under the direction of the CFIA. There have been suggestions that DFA should increase its inspection presence in fish processing facilities and even expand the QA program's mandate to final product inspection. This would require a substantial retraining of existing staff and would overlap with the role of CFIA. There are efforts currently under way between CFIA and DFA to negotiate a specific sector appendix to an umbrella agreement on food inspection.

Dockside grading programs have been established through the collective bargaining process between the FFAW/CAW and processors. The grading programs have primarily been implemented through a private company, TAVEL Ltd. This price grading is based on size and other parameters for the three major species. For shrimp, the price grades focus on count, damaged, and rejected product. Crab price grading is based on size and liveliness. The cod price grading program has a series of price categories based on such things as quality and size. The program is enforced by DFA through compliance with the grading program as a condition of license for all fish processors.

A dockside monitoring program monitors and records all fish landings in Newfoundland and Labrador. The program is administered by the Fish Harvester's Resource Centre of the FFAW/CAW. It monitors landings to ensure that quotas are adhered to by harvesters. It does not have a quality role, so there is no overlap between the dockside monitoring program and the QAP.

5.6 MARKET REACTION

The market has reacted positively to the quality improvements that have been achieved under QAP. Many product prices have increased since 1997. In general, buyers indicate that there has been an improvement in overall product quality. While all these improvements cannot be attributed solely to QAP, it is clear to the Commission, however, that the changes in handling practices made by the industry have created the foundation for these positive results from the marketplace.

It is only in recent years that quality of products has made up for lost ground. A review conducted for the Commission indicates that from 1992 to 1999 crab from this province consistently received a 10 percent to 17 percent lower price than received by crab from Alaska. In 2000, the marketplace began to recognize the quality of the province's production and in 2003 the price difference actually disappeared. A report prepared for the Commission indicates:

> *"The data on market pricing, plus interviews with buyers, establishes clearly that a major improvement in the market perception of crab quality occurred during the period from 2000 to 2003.*
>
> *As we have shown, some of the changes in price differential are partially due to changes in the overall price of crab. When prices are high, quality differentials tend to be small.*
>
> *However, the impact of genuine quality improvements can be detected in the data as well. During the period from 1992 to 1996, which was also a time when prices rose to high levels, the price differential, or the discounted price for crab from Newfoundland, never was less than 10% of the selling price of Alaskan crab. This means that even with the highest prices, in a short market, buyers still would only pay 90% of the Alaskan price for Newfoundland crab. There was a very strong perception that there was less value in the Newfoundland crab, and that was why, even with high prices, there remained a solid market differential.*
>
> *In 2003, when prices rose again to near record levels, the differential, or discount for Newfoundland crab, completely disappeared. This shows that the market has determined that in relationship to Alaskan crab, there has been a significant improvement in Newfoundland crab products during this period. In addition to the data presented, buyers repeated these conclusions verbally."*

The loss of value that occurred because of the existence and perception of lower quality product is substantial. In 2003, the industry gained an estimated 30-40 million dollars beyond what it would have realized if the 17 percent differential in prices remained as in late 1999. This change in reputation is due to a number of factors. The biggest change appears to be matching product with customer expectations, and showing buyers the consistent maintenance of the intrinsic quality of the crab. The development of a secondary section product allowed processors to pack according to buyer specifications. This has meant less meat production, however, it has enabled processors, for the most part, to better tailor their pack-types to market demand and place lower quality product (discoloured, missing limbs etc.) into a lower grade pack.

The quality of other products, such as cod and shrimp, has also shown improvements in the marketplace. Canadian loin and fillet products, however, represent the middle tier in the cod market. They sell for less than the Icelandic product, but for more than the Chinese product. Often the quality of cod landed does not allow processing into premium packs. This forces producers into lower end markets and results in a lower price. Lower quality raw material forces cod products into direct competition with Chinese cod. The consultant indicates that "*China has become the principal supplier of cod blocks to the U.S., and unless Newfoundland cod producers can maintain the high quality of their raw material, they will be competing in a very difficult market.*" Icelandic cod products still command a higher price than local cod products indicating that markets recognize quality and that there is room for improvement here.

For shrimp, there were quality problems when the new plants came on-stream in 1999 and 2000. Product has improved, and there were no major market complaints reported as part of this study. The study prepared for the Commission indicates that "*comments from buyers about shrimp quality over the past several years have indicated that although there were some initial problems in 1999 and 2000, many of these problems were resolved as plants gained knowledge of the UK specifications. During discussions with shrimp buyers in 2003, no concerns about quality came up.*"

In general, there has been an improvement in the quality of raw material entering the marketplace from this province. The market perception of crab and shrimp has improved and the cod produced is acceptable to the marketplace, but is commanding a lower price. There remains a loss in value that could be captured with a cooperative effort between all industry players.

5.7 OTHER COMMENTS

It became clear in this review that many of the problems relating to quality are beyond the scope of the QAP. The lack of scheduling by harvesters and processors results in crab and shrimp landings sometimes exceeding processing capacity and this negatively impacts quality. As well, industry actions very seldom reward good handling practises. With the exception of cod, raw material is treated as being uniform in quality and therefore, not really graded for quality standards.

It must be noted again that, in all of this, food safety is not being compromised. The quality problems in the industry result in a loss in value because of less-than-optimum practises, and hence, a less-than-optimum return from the marketplace. The safety of Newfoundland and Labrador seafood is not compromised and the products produced in the province are among the safest in the world.

The QAP approach taken by the province is unique in Atlantic Canada. Prince Edward Island has only two officers responsible for similar quality assurance activities. Their main emphasis is on dockside inspections and, to a lesser extent, the physical infrastructure and surroundings of processing plants. New Brunswick's three inspectors focus mainly on the overall cleanliness of processing plants and roadside vendors. Nova Scotia does not have a provincial quality assurance program, opting to allow CFIA to perform this function.

Under the Quality Assurance Program, government enforces regulations so that industry players can receive a greater return from the marketplace. The real question is why must government establish and enforce quality standards and introduce protocols to ensure that raw material is handled properly. At first glance, it would seem that this is the role of private enterprise and not the role of government. Economic theory would suggest that rational firms work to maximize their profits. The structural problems in the industry, however, prevent companies from maximizing their return by producing high quality products and enforcing quality measures throughout the supply network. This instability and lack of discipline inherent in the sector causes business decisions to be short-term.

Processors indicate that their overriding focus is on acquisition and retention of raw material and volume production. Companies compete first on price and, when they can no longer do this, they compete with non-price items such as quality requirements. As well, processors indicate that they have no control over the condition of raw material supply and are required to take catches as offered or risk losing all raw material from a harvester or harvester group. Processors indicate that their enforcement of quality standards often results in a harvester going to a competitor. This destructive competitive environment requires government involvement in quality assurance.

The quality problems found in our industry have been documented in a number of past studies. Most recently the Report of the Inshore Shrimp Panel and the 1998 Task Force on Price Settlement Mechanisms highlighted problems in the industry and recommended methods to improve product quality. The difficulties found in the shrimp sector are being currently addressed by a government-industry working group. Many of the recommendations of the 1998 Task Force have not been implemented and many of the issues related to handling that it identified appear to remain unresolved.

By species, a number of challenges remain. Shrimp and cod are not always harvested at the best times and a loss of income results from damage to crab that is often due to improper handling.

For shrimp, landings often exceed capacity resulting in a downgrade of product quality and yield. Problems with raw shrimp include inadequate icing, transportation for extended periods, overloaded bags, improper onboard handling, long delays between harvesting and processing, and high landings during peak seasons. The overall quality of cooked and peeled Northern Shrimp continues to improve; however, quality assurance must improve to ensure top quality.

Quality problems continue with cod in respect to soft fish as opposed to decomposition or unwholesomeness. Grading data indicate that the amount of cod downgraded in 2002 was 18.7

percent. In some fisheries the downgrade was significant: a 40 percent downgrade for otter trawl fish and only 39 percent of fish caught in July for the Southern Bank and St. Pierre Bank was Grade A.

Problems remain in the crab sector. The amount of limb loss remains high and there are often high percentages of critically weak crab. In 2003 there were reports that landings often exceed processing capacity, thereby result in crab being processed in a less than lively condition.

There are several main conclusions that can be drawn from this evaluation of QAP. These are:

- The program is effective and has provided a benefit to the industry;
- There isn't a regulatory overlap with this program and other programs;
- Structural and behavioural problems in the industry require that the program remain in place;
- The large geographic area covered by inspectors requires additional resources;
- The level of training for inspectors has to be improved;
- There is a need for a pricing system that clearly rewards quality;
- The grading programs currently in place should continue and where possible expanded to true quality programs;
- The quality standards currently in legislation are inadequate.

This overall evaluation also leads to several recommendations. I recommend these actions in respect of the QAP:

Recommendation 5.1

- ***That the Department of Fisheries and Aquaculture continue the Quality Assurance Program with a renewed focus on raw material quality from the dockside through to the holding rooms of processing plants. Changes to the program should include:***
    - ***Expanding and updating species quality standards, in consultation with industry, at all stages of raw material handling including new standards for***

temperature and stacking, standards for lapsed time from harvest to processing, transportation of raw material, and handling on-board vessels.

- ***Improving surveillance by expanding both the geographical coverage and the hours of operation of the program.***
- ***Reviewing its enforcement measures to ensure adequate types of assessments are being undertaken.***
- ***Reactivating the industry quality working group with clear direction and scheduled meetings.***

Recommendation 5.2

- ***That an ongoing training program be implemented for Inspectors to ensure they have the necessary knowledge to deliver the Quality Assurance Program effectively.***

Recommendation 5.3

- ***That an objective method of testing the quality of shrimp be developed for the next harvest season.***

Recommendation 5.4

- ***That quality standards be developed for maintenance and cleaning of holding system equipment on-board vessels.***

Recommendation 5.5

- ***That a training program be developed for crew members and persons offloading fish and shellfish.***

Recommendation 5.6

- ***That a ticketing system be developed for minor violations with a level of fines high enough to deter violations.***

CH. 6 LICENSING AND MANAGEMENT OF FISH PROCESSING: ISSUES AND CHALLENGES

The Commission's Terms of Reference contains two items with respect to licensing of fish processing plants. The first called for a reassessment of the Core and Non-core plant licence approach in the light of the original intent, the non-recovery of groundfish stocks, and the concept of "strategic plants". The second item requires a virtually complete re-examination of the various policy objectives, tools or measures that are involved in administration of the provincial processing plant licensing program. These include the basis for issuing new licences, criteria for licence transfer, the use of resource or capacity thresholds as criteria for licensing actions, defining regional balance in processing and resource availability, and other rationalization and associated mechanisms to bring increased stability to the processing sector. This Chapter will cover all these licensing aspects or issues in the context of how provincial management of this sector has developed over the years, the licensing issues involved at the moment, and the challenges in moving on from the present. Included will be an in-depth discussion of the issue of further processing. The reference to pre-conditions for joint management will also be included in this Chapter.

The assessments here are based on the findings of several recent studies or reviews conducted for the provincial government, views expressed at meetings held with the members of the fishing industry, written submissions received by the Commission, several specific analyses contracted by the Commission, a review of internal information and files, and additional data gathering and analysis conducted by support staff of the Commission. A brief review of the major developments in the licensing of fish processing will be useful to set the stage for an in-depth look at the current difficulties of the licensing program and its policies. A more detailed discussion of these developments is contained in Chapter 5 of the Report of the Special Panel on Corporate Concentration in the Fishing Industry.

6.1 THE PROCESSING LICENSING APPROACH TO 2003

Until the mid-1970s, the policy approach to the fish processing sector had been one of development and modernization. Public subsidies were widely used as government strove to increase the capacity of the sector against all outside competitors. An active Loans Guarantee program was not curtailed until the late 1980s. The complete cessation of public assistance for fish processing facilities officially ended with the groundfish moratoria but the total disappearance of it may not yet have happened.

The provincial government first required fish processing plants to obtain an operating licence in 1975. In 1979, these licences became limited in terms of the main species that could be processed. By 1981, with the restructuring of the offshore sector pending, the government adopted a complete freeze on the issuance of additional processing plant licences and imposed capacity controls on individual plants. The latter were largely ineffective because of the considerable difficulties in defining and measuring capacity and the widespread disregard of the limitations by operators.

By the time of the groundfish moratoria, considerable excess processing capacity had developed primarily for groundfish and pelagics. In the early moratoria years, the government rejected an industry proposal to reduce capacity through the purchase of licences.

In early 1996, the then federal-provincial Fishing Industry Renewal Board (FIRB) recommended the province adopt a new approach to management of the fish processing sector based on the concept of assigning a raw material allocation to individual plants. After a negative response to a test of that approach in that summer's capelin fishery, the concept was dropped from the final report in November of 1996. That report proposed a new fish plant licensing policy based on such key elements as the Core and Non-core classification of plant licences, a continued freeze on additional plant licences, and no additional crab licences until groundfish began to recover.

The central feature of the new policy was to be Core and Non-core licence classification to create the basis for the adoption of a strategic plant approach as groundfish recovered. Plants achieving Core status (based on their past production history) would be permitted to process all available species except crab and 4R shrimp. Plants that fell short of the Core thresholds were licensed as Non-core, restricted to the species they were already processing and could not add to the processing methods they employed. The new policy, without the limitation on new crab licences, was announced in March 1997.

Three additional crab licences had already been issued in 1996 to address some lack of regional balance in crab processing on the South and West coasts. Proposals from Core operators for crab licences were entertained in 1997 as crab quotas continued to increase to unheard of levels. A total of 14 crab licences were issued in that year, not all of them from the proposals submitted. Pressure continued for crab licences and three were issued over the next three years. In 2001, another six licences, limited to 450 tonnes of raw material purchase for value-added production were issued. Two of the licences issued in 1997 were subsequently cancelled because of inactivity. The end result was a total of 42 crab licences, 13 of which are held by Non-core facilities. By 2003, four inactive crab licences exist.

In 1997, the quota for Northern Shrimp was raised significantly and almost all the increase was allocated to the less than 65 ft. fleets in northern 4R and 3KL. The provincial government, after consulting with industry, took the position that the high cost of specialized shrimp plants would limit the numbers of Core operators establishing such facilities.

As the numbers of new shrimp plants began to out-strip increases in the quotas, or in the available markets, the government established a deadline for plants to be in operation before shrimp processing licences were closed off. By that cut-off date of December 31, 1999, new shrimp processing operations had commenced at 10 locations. However, an additional four licences were issued before the end of 2001; three in Labrador and one in 3K. By 2002, the number of plants permitted to process 4R shrimp had increased from two to five. In all, 14 new licenses were issued for shrimp processing, three of them (all in Labrador) have not been activated.

In addition to the crab and shrimp licensing actions, one plant to process only aquaculture production, one new groundfish operation and six secondary processing facilities have been authorized since 1996. Seven inactive licences have been reactivated and 11 licences have been transferred. These include transfers to consolidate operations, to qualify a facility for Core status, or to relocate existing licensed operations.

Table 6.1
Summary of Processing Licenses Approved/Issued, 1996-Current

Shrimp	**1997:** Bay de Verde, Clarenville, Old Perlican, St. Lewis; **1998:** Port Union, St. Joseph's; **1999:** St. Anthony, Black Duck Cove, Jackson's Arm; **2000**: Seldom; Black Tickle, Rigolet; **2001:** Charlottetown; **2002:** Twillingate
Crab	**1996**: Benoit's Cove, Burgeo, St. Lawrence; **1997:** Aquaforte, Brigus, Cape Broyle, Carbonear, Codroy, Cupids, La Scie, Makkovik, New Ferolle, New Harbour, Ramea, Tors Cove, Triton, Woody Point; **1998:** Twillingate; **1999:** Gaultois, **2000:** Black Tickle; **2001:** Glovertown, Happy Adventure, Hickman's Harbour, Plate Cove East, Portugal Cove, Winterton
Aquaculture	**2001:** Harbour Breton
Groundfish	**2002:** Burgeo
Secondary Processing	**1996**: Mount Pearl, Upper Island Cove, Cape Freels North; **1998**: St. Anthony; **2000:** Harbour Grace; **2002:** Isle aux Morts; **Pending:** Fairhaven
Reactivated	**2001:** Heart's Desire, St. George's, Fleur de Lys (2 plants), Petty Harbour, **2002:** Twillingate, Cupids

Source: DFA
Note: License may appear more than once due to addition of species.

The other significant feature of the new plant licensing policy was to be the cancellation of licences that went unused for two consecutive years. When a few such actions resulted in community protests, the Department dropped this approach and inactive licences are now held in abeyance. They cannot be reactivated unless an acceptable business plan is presented to, and approved by, the Minister. However, the precise guidelines and criteria for acceptable re-activation proposals are unclear.

When the new policy was implemented in 1997, 65 plants were classed as Core and 96 as Non-core. By 2003, there were 71 Core plants and four of these had become inactive as had 41 of the Non-core facilities. However, these 45 inactive licences are still on the books as apparently are another 36 that were already inactive as of 1997. The Department's files also list some 53 cancelled licences, some of which have not produced since 1992. The maintenance of these lists appears to be based on the assumption or conclusion by community interests that all locations associated with inactive and cancelled licences are forever entitled to make a proposal to the Minister for re-activation of a licence. On that basis, the current fish plant licensing complement could be interpreted to total 256. Clearly, this situation is unrealistic.

Figure 6.1 outlines the Departmental system for approval of license applications. This process for assessing applications applies to all licensing proposals with the added provision for public notification and comment in the case of transfers. However, the exercise of Ministerial discretion in the issuance of new licences from 1996 to 2002 leaves some doubt whether any established process is followed in those cases.

6.2 CURRENT RELEVANCE OF CORE/NON-CORE LICENSING

The original Core/Non-core approach was proposed on the assumption or expectation that groundfish would gradually recover. Indeed, the whole basis for the approach was rooted in the dominance of groundfish in the pre-1992 industry. The November 1996 report of FIRB implied that Core plants, being multi-species, would be synonymous with, or enable, a strategic plant approach to management of the processing sector. The 1997 announcement of policy indicated "*Designated core plants will "anchor" regional processing activity*".

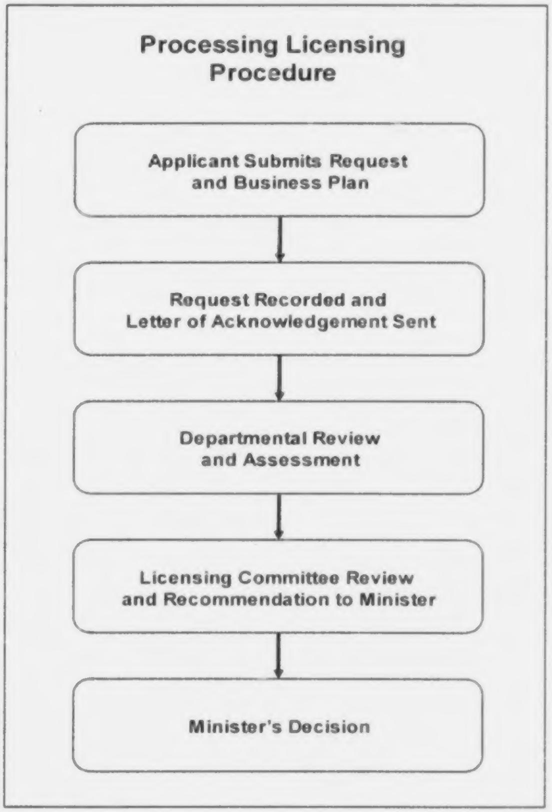

Processing Licensing Procedure
Applicant Submits Request and Business Plan
Request Recorded and Letter of Acknowledgement Sent
Departmental Review and Assessment
Licensing Committee Review and Recommendation to Minister
Minister's Decision

Figure 6.1

However, a number of developments overtook any intentions government may have had of proceeding in this fashion. The most significant was the unexpected growth in abundance of crab and shrimp and the subsequent non-recovery of most major groundfish stocks. Entry into crab or shrimp processing became high profile licensing initiatives of both the government and industry. Significant pressure was exerted on government to allocate this newly preferred access as widely as possible.

The resulting excess capacity and short operating season in these two activities has become a major characteristic of the industry. Groundfish dependent plants are a rarity, as are year-round operations. Attempts to diversify Core plants into multi-species operations have generally come to naught because the abundance of newly emerging or underutilized species is generally not great. Also, the difficulties in commercialising such species deters interest by many Core operators who are very occupied by the derbies of crab and shrimp processing or acquiring scarce groundfish supplies. As a result, some Non-core operations have received permission to process underutilized or emerging species to provide a market for developing catches.

The overall outcome of various resource developments and licensing actions since 1997 is that the development of multi-species Core plants has not occurred for the following main reasons:

- New entry to the new main processing activities was not restricted to Core plants. Indeed, some of the pre-1997 crab licences had long been held at facilities that did not meet Core criteria. Also, some of the new crab and shrimp processing licences were issued to plants that did not meet Core standards, primarily on the West Coast and in Labrador;
- It was not always possible to reserve entry to newly emerging species for Core operations only;
- With the possible exception of the last two years, pelagic species have not been available to diversify many operations. Groundfish processing, which by its very nature could be a multi-species operation, is at only about one-eighth of its former level.

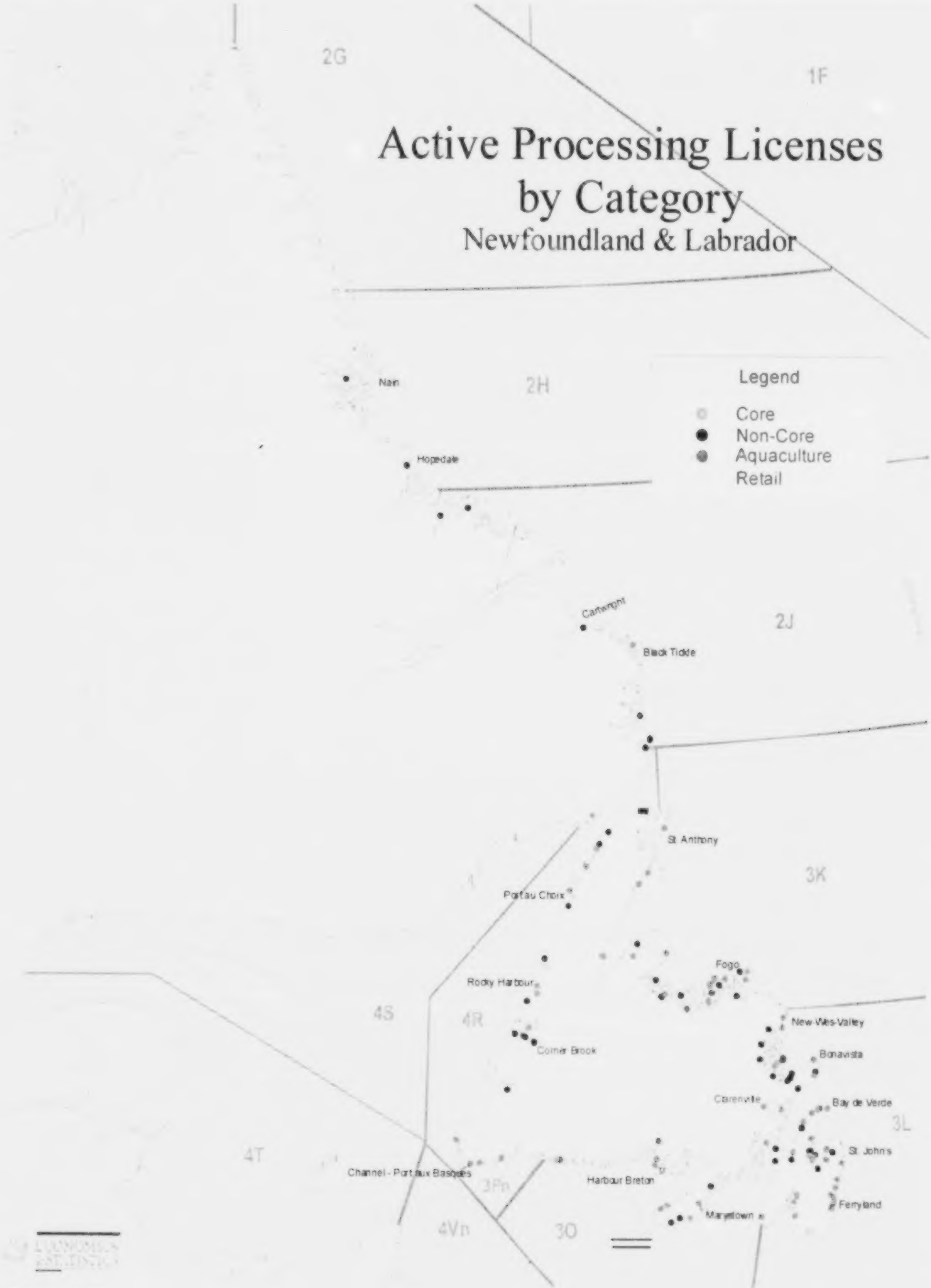

Active Processing Licenses
by Category
Newfoundland & Labrador
Legend
● Core
● Non-Core
● Aquaculture
Retail
2G
1F
2H
2J
3K
3L
4S
4R
4T
3Pn
4Vn
3O
Nain
Hopedale
Cartwright
Black Tickle
St. Anthony
Port au Choix
Rocky Harbour
Corner Brook
Fogo
New-Wes-Valley
Bonavista
Clarenville
Bay de Verde
St. John's
Ferryland
Marystown
Harbour Breton
Channel - Port aux Basques

Figure 6.2

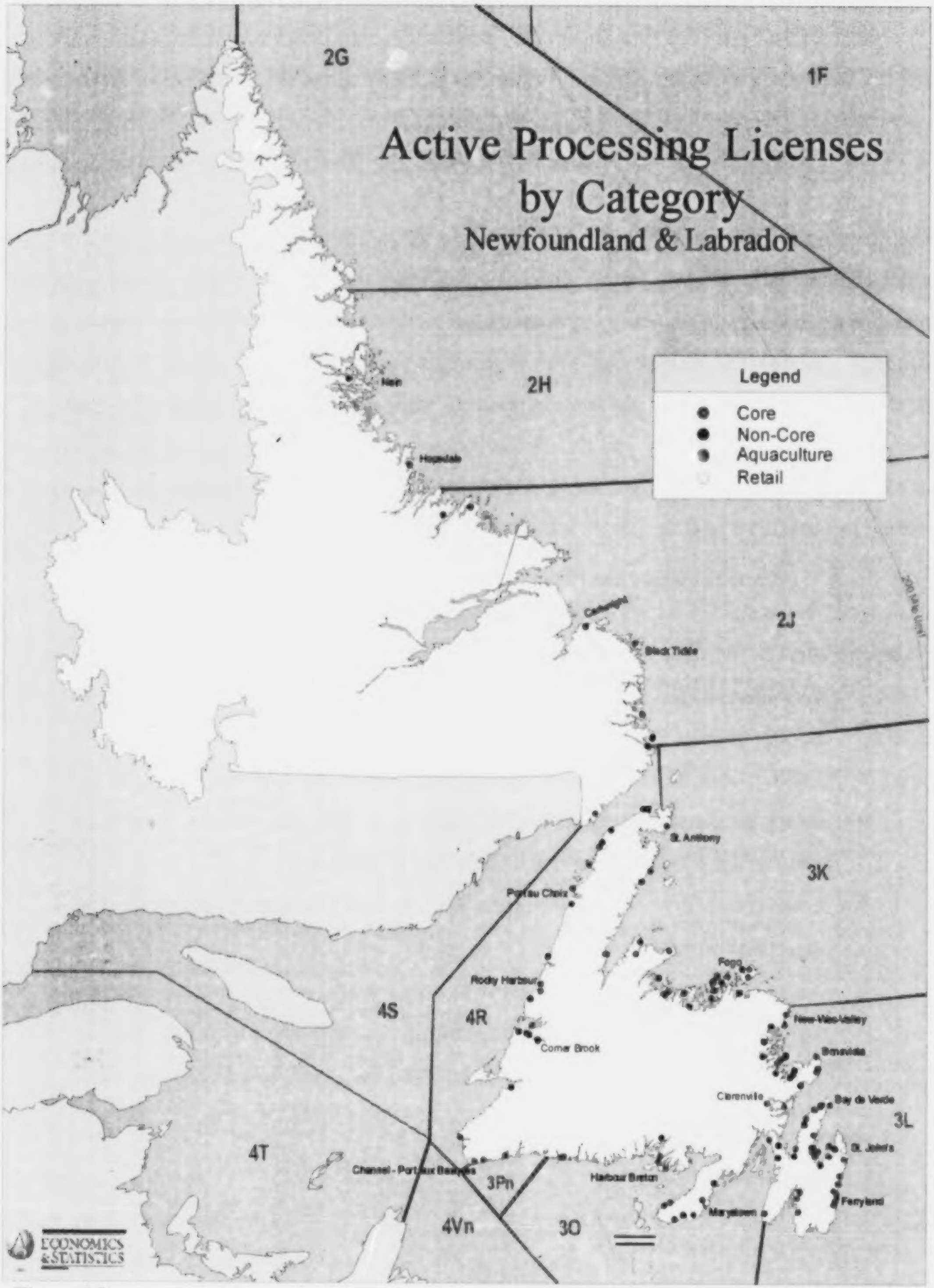

Active Processing Licenses
by Category
Newfoundland & Labrador
Legend
● Core
● Non-Core
● Aquaculture
○ Retail
2G
1F
2H
2J
3K
3L
4R
4S
4T
3Pn
4Vn
3O
200 Mile Limit
Nain
Hopedale
Cartwright
Black Tickle
St. Anthony
Port au Choix
Rocky Harbour
Corner Brook
Fogo
New-Wes-Valley
Bonavista
Clarenville
Bay de Verde
St. John's
Ferryland
Marystown
Harbour Breton
Channel - Port aux Basques
ECONOMICS & STATISTICS

Figure 6.2

Consequently, Core/Non-core licensing has really developed into a "species listing" licence approach. Core plants have one species list that may include crab and/or shrimp, while Non-core operations have another that may also include crab and/or shrimp. It was not possible to allow open entry to the two lucrative species that now contribute most of the value of output and the incomes of harvesters and processing workers.

Likewise, lack of interest from Core operators, who were automatically authorized to process all available species (except crab and shrimp), could have hindered development of some emerging species fisheries. Most industry participants feel the Core/Non-core concept is now meaningless because of various licensing actions since 1997. Some suggest a universal restricted species-by-species approach should be followed across the board. Some suggest re-calling all licences and then re-issuing new species-specific licence authorizations covering only those species activities recently pursued. Others feel a more restricted licensing approach may be necessary for newly emerging species. This could be necessary to launch such a new initiative successfully or to protect the new activity from quickly and prematurely developing the excess capacity that is possible under the open-ended Core approach. All this suggests an approach whereby future licensing actions would be more species-specific without completely undoing the basic policy objectives of a two-tier prioritized licensing system.

6.3 THE CONCEPT OF STRATEGIC PLANTS

Closely related to categorized plant licences is the concept of "strategic plants". This term, or concept, has been around the industry for a long time and is generally understood by most industry participants. However, clear policy references to it are few at best and no actual list may ever have been prepared. References to the notion of strategic plants are also infrequent in the many reports prepared for, or written by, government over the years.

In the 1980 report "**Managing All Our Resources**" the authors referred to government's desire to encourage a balance within the processing industry, and when processing licences are awarded, appropriate regional levels of capacity will be taken into account. The objective was to prevent excess capacity while also avoiding regional monopolies among fish buyers and processors.

The Kirby Task Force on Atlantic Fisheries in its 1982 report "**Navigating Troubled Waters: A New Policy for the Atlantic Fisheries**" notes the high degree of dependence on fish plant income in most communities and the difficulty to remove redundant or inefficient capacity because of it.

The 1986 "**Report of the Royal Commission on Employment and Unemployment**" references the overcapacity in the processing sector and attributes it to government subsidization and political expediency. The key recommendation for government policy makers was to align processing capacity with available resources to improve quality and marketability of products and create a better business environment.

The LINK Group, in its 1988 report on "**Fish Plant Licensing Policy Review**", noted that licensing policy at that time made no reference to regions except Coastal Labrador in assessing licence applications. It was suggested that a regionalized approach should be taken, perhaps looking at the ratio of landings to freezing capacity.

The Fishing Industry Renewal Board in its 1996 "**A Policy Framework for Fish Processing, Final Report**" considered a number of options for managing access to fish processing licences. One such option was to consider priority for licences in strategic geographic locations. In this regard, the report referenced government's granting three new licences in strategic locations where there were no existing crab licences. From a strategic plant perspective, the FIRB mentioned St. Anthony, Twillingate and LaScie as prime candidates for new crab licences given the abundance of resource in their respective areas and their long history as primary centers of fishing activity.

"The Report of the Special Panel on Corporate Concentration in the Newfoundland and Labrador Fishing Industry" in 2001 described fishing towns, such as Burgeo, Ramea, Gaultois and Twillingate, as having been strategic centers in the groundfish days with year-round plants supplied by company-owned trawlers as well as the inshore fleet. It referred to plants in other areas of the province that were located in close proximity to landings. It mentions how the proliferation of plants in the post-1977 period eroded the role of many of these strategically located plants.

The Panel suggested that Government should increasingly coordinate its fisheries development and regional economic development policies, especially in terms of advancing the role which strategic regional centers can play in anchoring regional economic development and stabilizing regional economies. If Government's objective is to create regional balance and maintain and/or establish plants in strategic locations, it needs a consistent, predictable and transparent licensing regime. The Panel felt a clear policy is needed on how government proposes to strengthen the role that strategic plants, both inshore and offshore, play in the province's economy as a whole and in specific regional economies throughout the province as resource circumstances change.

It appears this concept was a real part of government policy initiatives in the 1960s and 1970s when it took a more pro-active role in the locating of plants as fish freezing replaced salting operations. In spite of the lack of clear policy references to it in recent times, there still is a widespread appreciation of which existing processing locations would be in the category of "strategic plants". It is, therefore, not a question of whether such plants still need to be constructed but more that they are already there. It was not argued to the Commission that a precise and official list of such plants should be developed. The simple action of accepting this concept as a policy criterion that would be used in the future to direct all licensing actions in support of generally recognized strategic plant activities would be sufficient.

In a later section, I will deal with some economies of scale and location considerations that should be used in used in making or directing licensing decisions. That discussion will indicate a way in which the concept of strategic plants and the related policy issue of regional balance, can be advanced or given some focus in future licensing actions. The basic point is that there is little or no leeway to further this concept in the short term through licensing of additional plant or species activities. The short-term priorities have to be aimed at improving operational stability and industry streamlining.

6.4 THE CHALLENGE OF FURTHER PROCESSING

Further processing of fish products is often proposed as a solution to many of the problems that have plagued the industry for decades. Products processed beyond the primary or commodity stage are assumed to bring greater net-returns. provide higher levels of employment and result in more industrial spin-offs. The simple fact that such processing has not occurred to any great extent is a perplexing question in itself.

6.4.1 The Problem of Definition

There is no single or universally understood definition of, or distinction between, primary or industrial level, secondary and value-added processing. In general, terms, most definitions of primary processing usually include converting raw material into a commodity-level product that is usually bulk packaged and not at the consumer-ready level. The current provincial regulatory definition of secondary processing involves the further converting of raw fish into a food product through various means of preparation and the addition of one or more ingredients (i.e. cooking, mixing, stabilizing, preserving, etc.) Primary processing is often synonymous with minimal processing while further processing really includes both secondary and value-added processing.

Value-added processing also means different things to different people. The most common and enduring misconception is that value-added involves further processing beyond the primary or industrial pack stage. Value-added production can encompass any process or service that adds to, or enhances, the value of products to customers without necessarily adding any ingredients or changing the taste and texture. Among other things, it can include supplying new products or different varieties, changing presentation to meet market requirements, providing additional services, and implementing promotion and marketing activities to differentiate products. For example, vacuum-packed portion sizes of salmon fillets are a value-added product, but not a secondary processed product. Thus, value added products can often be achieved without any secondary transformation of the raw material.

When the desired result is to make more effective use of fish resources, all forms of further processing can accomplish this goal. The objective is potentially more profit for the enterprise, higher prices to fish harvesters and increased employment for plant workers. A good example is the production of raw shrimp tails in consumer-ready packs for sushi markets in Japan. This value-added product could result in all those benefits as it would both fetch a higher market price and require more labour to prepare. However, it is not transformed beyond the primary state other than being placed in consumer-ready packs.

In the provincial regulations, there is a specific definition of secondary processing for licensing purposes. While government development policies refer to "value-added" production, there is no official regulatory distinction between primary, secondary and value-added production. The *Fish Inspection Regulations* under the *Fish Inspection Act* of Newfoundland and Labrador contains the following definition of "secondary processing":

> *"Secondary processing" means the processing of fish as part of its preparation for market beyond the primary processing stage by either, adding one or more ingredients, other than water or salt, to it which results in a substantive increase to the bulk and/or substantive transformation to the taste and texture of the fish as a food product, or applying some other treatment or process to it, other than salting or curing, which results in a significant taste, flavour and/or texture enhancement of the fish as a food product."*

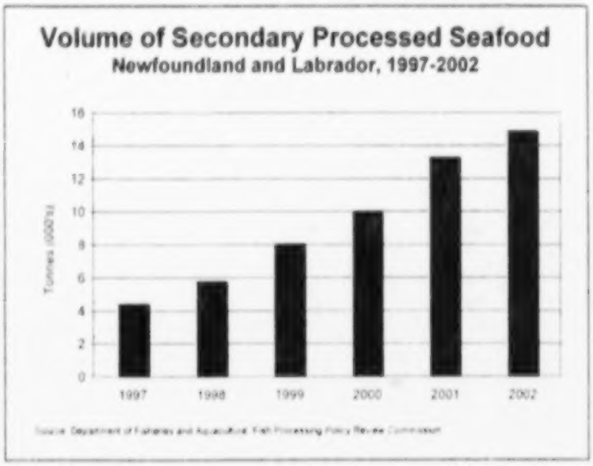
Prior to 1997, the definition of "secondary processing" was "*any processing stage beyond shucking, filleting, pickling, cooking, salting, drying, freezing of the whole or partly processed fish, whereby further value is added to a fish product through preparation into a consumer type pack.*" The definition change after 1997 resulted in the exclusion of some products that were previously considered secondary processed. Previously, products such as canned seal meat and consumer-ready vacuum-packed salt fish had been considered secondary processed. The change in the definition of "secondary processing" was necessary because the policy changes in 1997 permitted "secondary processing" licence holders to purchase raw material, except snow crab and 4R shrimp, directly from fish harvesters (subject to the approval of specific proposals by the Department of Fisheries and Aquaculture). The new definition was established so these licence holders understood the parameters under which they could operate their processing facility.

6.4.2 Production and Exports of Further Processed Products

Processing plants throughout the Province vary substantially in size, scope of operations and sophistication of technologies employed. The majority undertake only the most basic cleaning, filleting, packing and freezing processes while some are equipped with modern equipment and the capacity for product diversification. Less than a dozen companies carry out real secondary processing. They process a diverse range of products such as smoked salmon, cod nuggets, imitation crab, stuffed sole, vac-pac mussels and fish cakes. Many processing companies carry out value-added production, in the form of more consumer-ready products. The extent and volumes are difficult to determine given the lack of detail in general statistics and the confidential nature of data on individual company operations.

In 2002, almost 15,000 tonnes of secondary processed seafood products were produced in Newfoundland and Labrador with several large companies producing the majority of this volume. Production of secondary processed products has increased substantially from 1997 to 2002 with an average annual increase in production of 27.6%.

This substantial increase from 1997 to 2002 is partially the result of reprocessing of imported raw materials. In particular, Fishery Products International (FPI), at its Burin facility, imports a large proportion of raw material it utilizes. This facility produces and markets such products as breaded fish fillets, rolled and stuffed sole and cod nuggets for food service and retail customers across North America. Importing raw materials enables FPI to maintain a consistent supply for processing. Other companies use a similar import-export strategy to supplement local raw materials.



Source: Department of Fisheries and Aquaculture; Fish Processing Policy Review Commission

Figure 6.3

In the past few years, a number of processors have invested in aquaculture operations or arranged partnerships with aquaculture farms to secure raw material for further processing. One example is the several processors who are involved in the production of cooked, vacuum-packed mussels for retail and foodservice markets in the United States.

Table 6.2
Export Value of Seafood Products by Province and Level of Processing, 2002

Province	Export Value			
	Primary		Secondary	
	Value ($Million)	%	Value ($Million)	%
Newfoundland and Labrador	810	86.7	124	13.3
Prince Edward Island	183	77.3	54	22.7
Nova Scotia	1,173	95.3	58	4.7
New Brunswick	667	75.8	213	24.2
Quebec	161	75.8	52	24.2
Other	1,137	93.6	78	6.4
Total (Canada)	4,132	87.7	578	12.3

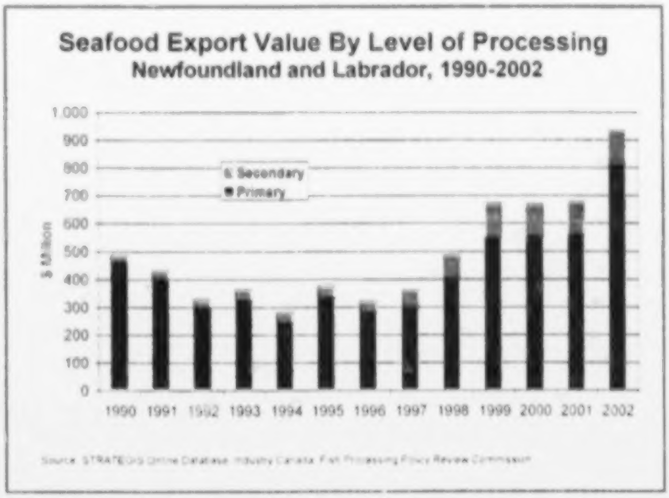
Data Source: STRATEGIS Database, Industry Canada; Fish Processing Policy Review Commission

Primarily the larger seafood companies in the province have had the most success with secondary processing and value-added production. This is a result of having adequate capital to invest in new product innovation and development as well as the necessary marketing resources to launch new products and carry out marketing and promotion activities to penetrate new markets. Typically, larger companies are also more able to absorb costs, carry larger inventories and wait longer periods before receiving payment for products.

Table 6.2 shows the export value of Canadian seafood products by province and level of processing for 2002. Newfoundland and Labrador's seafood export value consisted of 86.7% primary and 13.3% secondary products, almost on par with the national average of 87.7% and 12.3%, respectively. Nova Scotia's primary export value accounted for 95.3% of its total export value, much higher than the other provinces. One reason for such a high percentage can be due to the way trade data is collected. The STRATEGIS database is Customs-based data compiled by Statistics Canada and covers the physical movement of goods as reflected on customs documents. They are recorded at point of shipment and do not account for product origin. Some Newfoundland and Labrador exports destined for the U.S. market overnight in Nova Scotia and effectively become a statistic of that province. The other factor could be the proximity of that province to the U.S. fresh fish market and the existence of "fishermen-packers".

The export value of secondary processed products from this province amounted to over $124 million; much lower than New Brunswick but more than double the levels in the other Atlantic Provinces and Quebec. Figure 6.4 shows historical values of seafood exports by level of processing for Newfoundland and Labrador from 1990 to 2002. Despite increases in export values of secondary processed products, the ratio of primary to secondary export value has not changed significantly in the last decade.

There was a decrease in the export value of primary products from 1990 to 1994, a result of the groundfish moratoria. Of that period, the export value of secondary products increased 53%. From 1994 to 1997, primary product export value shifted up and down as the industry adjusted to the production of reprocessed groundfish and higher value shellfish products, primarily snow crab. Total secondary product export value increased 62% from $38.3M in 1994 to $62.3M in 1997.



Source: STRATEGIS Online Database, Industry Canada; Fish Processing Policy Review Commission

Figure 6.4

Since 1997, there has been a steady increase in the export value of primary products, a result of increased production of shellfish products. Also, increased prices for snow crab sections, particularly in the last few years, has contributed to the higher value of primary exports. The steady increase in the export value of secondary processed products from 1997 to 2002 is mainly the result of increased further processing of imported raw material. Despite the increased export value of secondary products, the percentage of primary product export value has been steadily increasing in the last few years. Overall, these facts would suggest that there is minimal further processing of local raw materials taking place, however, there have been some gains in recent years.

6.4.3 Industry Views

There is a widespread feeling amongst fish plant employees and harvesters that more secondary and/or further processing should be required of licensed processors. They claim holding a fish processing licence is a privilege granted to a limited number of operators to process raw material from a public resource. Consequently, their view is that government (and the public) have a right to expect more than minimal volume-oriented processing from the industry.

Companies argue that further processing more closely relates to "cost-adding" than to "value-adding". They claim it is not always profitable, suitable, or practical to further process or attempt adding value to certain products. In some cases, it makes better commercial sense to export a product in bulk form. For example, it is much more profitable to produce crab sections at $6.50 per pound than crabmeat at $11.00 per pound.

The preparation of crab sections involves fewer steps with less input and labour costs than crabmeat. Processors say that they have taken losses on meat production at the prices the market is currently willing to pay for significant volumes. However, critics argue that snow crab sections exported for further processing overseas, or in other provinces, amounts to exporting jobs. They argue that meat production in the province could create more employment in rural areas. However, processors argue that they cannot compete with crabmeat processed in China and Thailand.

Maurice Beaudin in his 2001 report, "**Towards Greater Value: Enhancing Eastern Canada's Seafood Industry**", published by The Canadian Institute for Research on Regional

Development, analysed the issue of further processing in Atlantic Canada. He concluded that many attempts at diversification were usually in response to cyclical crises in the industry. The reflex action of industry was to "*direct these initiatives into areas for which they were rather poorly prepared or toward opportunities with uncertain potential, such as the use of underutilized species.*" Furthermore, he felt industry's motivation and desire to invest and innovate in further processing and value-added activity are limited.

The reasons for this could include the following:

- Difficulty in guaranteeing volume and continuity of supply of raw material;
- Perceived market preference for whole or minimally processed fish;
- Traditional high-volume, low-margin sales strategies;
- Comparatively high cost of raw material (e.g. 80% of market price);
- Increased time spent competing for raw material.

In recent years, Newfoundland and Labrador, and other jurisdictions, have been losing processing opportunities to low-cost countries like China and Thailand. Development of the secondary processing sector of the industry faces an uncertain future unless there is adequate time and investment spent on product and market development. Since most of the fish processing in the province is still basic, there is good potential to increase value and employment through further processing and value-added initiatives. A growth in the number of enterprises that add more value or perform secondary processing can enhance the province's seafood industry.

6.4.4 The Product Development Process

Developing a successful value-added or secondary processed food product is not easy, and the competitive environment of the future will make it more difficult. Companies normally go through a number of steps or stages in developing new products from idea development through to commercialization.

Product development is not limited to creating new and unique food items. It also includes product repositioning, line extensions, and reformulating existing products. Although there are numerous ways to add value to fish products, it generally requires significant capital investment in equipment, continuous and steady access to raw material, and effective and costly marketing strategies. Companies can spend months, even years, analyzing a potential product's technical feasibility, market potential and financial strengths and not even launch the product.

6.4.5 Continuing Challenges

The industry faces a myriad of challenges in adding more value to seafood products. Some of these challenges include:

- **Seafood Industry Consolidation:** Consolidation in the food industry is creating a group of large, multi-national companies that increasingly dominate the manufacturing and distribution of seafood worldwide. This consolidation could make it increasingly difficult for small- to medium-sized companies to compete in regional, national and international markets. Smaller companies will need to create specialty products, offer customized services, and target "niche" markets that these larger companies may not be able to efficiently service.

- **Technology:** Application of science and technology has resulted in complexity and sophistication in the production of many of today's food products. Demand for processed and more convenient foods has resulted in the need for increased research and development related to processing, packaging, storage, safety, and nutrition of foods. Modified atmosphere packaging, heat pasteurization, ultra high-pressure pasteurization, irradiation, and carbon monoxide treatment are some of the new technologies being utilized to extend product shelf life, improve food safety and meet emerging consumer demands. A current and comprehensive understanding of the current state of development, limitations, and commercial feasibility of new technologies is essential.

- **Global Competitiveness:** Understanding and coping with the dynamics of competitiveness in a global context is increasingly important. Competitive advantages can be upgraded, sustained or lost over time. Some of the key driving forces of competitive advantages are economies of scale and location, capacity utilization, investment timing, vertical integration and business linkages.

- **Trade Barriers:** Tariff escalation, whereby higher tariffs are applied to processed goods, is another factor that can influence the competitiveness of value-added seafood products from Newfoundland and Labrador. Some countries adopt tariff barriers to encourage domestic manufacturing industries and restrict imports to basic input materials. For example, the current 20% tariff on cooked and peeled shrimp entering EU markets has been a contentious issue with processors and government for many years. Such value-added tariffs act as a disincentive for Newfoundland and Labrador value-added seafood processors in some markets.

6.4.6 Recent Focus of Development

Government supports and encourages secondary and value-added processing in its administration of licensing policy and through its services and programs. This is to achieve a more sustainable, competitive and profitable fishing industry which can generate employment, particularly in rural areas of the province. Over the last few decades, provincial and federal governments have allocated considerable funding for research, development and marketing of secondary processed and value-added products. Numerous resources have been available to assist companies in this area of development. The Department of Fisheries and Aquaculture has played a key role through product research and development, technical support services and market development activities.

Some of the key areas of focus in recent years have been functional foods and by-product utilization. Functional foods (or "nutraceuticals" as they are widely known) are products that can positively enhance health. These products have flourished in recent years with rising health care costs and an ageing population. Examples of such developments in this province are seaweed health supplements and seal oil capsules. By-product utilization has also been an ongoing industry initiative with considerable government support. There are a number of processing technologies utilized to convert fish waste into marketable products. Some of these processes involve grinding and cooking of raw fish and offal, drying of raw material, or chemical extraction processes. A recent example of by-product development is the work under way by several companies on production of chitin and chitisan from shellfish waste. The high risk and investment associated with this work, however, has resulted in companies taking a slow approach to development.

Markets for many of these products are well known while others are not as clearly defined in terms of size and value. Keys to success include understanding and accessing the raw material volumes necessary for economic operation, analysing the logistical issues of regional resource or by-product availability, accessing the required start-up and operational capital, identifying, and tapping into realistic markets. The Department of Fisheries and Aquaculture and other government agencies continue to facilitate the commercial development of functional foods and fish by-products.

One of the key objectives of government's overall licensing policy is the encouragement of secondary and further processing. Current licensing policy principles raise no regulatory obstacles to secondary processing. The key provisions include:

- No limitation on secondary processing licences;
- Raw material, except 4R shrimp, can be sourced by secondary processors from fish harvesters, subject to a review of proposals by the Department of Fisheries and Aquaculture;
- Secondary processing licence holders are not authorized to engage in the sale of primary processed products;
- Existing primary processors may carry out secondary processing under their current licence.

6.4.7 Future Prospects

In spite of considerable efforts by the industry and government to increase the level of secondary and value-added production in the seafood industry, the industry is still exporting the majority of its seafood products in its primary form. The industry, as a whole, has not achieved a good record of accomplishment in product diversification and market development. Although secondary processing and value-added production have increased, more effort is still required to enhance the value of our seafood resources to benefit the whole province more effectively. Given the current constraints in the industry and the challenges involved in secondary processing and value-added production, it is questionable whether regulatory measures are practical. However, even minimal further processing requirements should not be completely discounted.

There are still quite profitable markets for most of our traditional primary products and it does take time and other financial resources to develop markets for secondary processed and value-added products. Government must continue to foster this development through its various support programs, and wherever possible, provide non-monetary incentives in its regulatory framework for the processing sector. It should also institute more performance criteria in these activities as part of the annual licence renewal process.

6.5 SOME ESSENTIAL ELEMENTS OF PROCESSING SECTOR LICENSING

The introduction of the Core/Non-core license classification in 1997 did not address the overall size of the processing sector in any direct or meaningful way. There was no reference to any assessment of the level of capacity that would be appropriate then or in the future. The policy objectives that were adopted as part of the new policy were as follows:

- To promote industry stability, competitiveness and viability;
- To facilitate a regional balance between resource availability and industry capacity on a regional basis;
- To enhance the maximum operating period possible for processing plants;
- To enhance the quality of fish products and to maximize the economic benefits associated with their production.

Government introduced the Quality Assurance Program immediately after the announcement of the new policy. The objective of this program was to enhance the quality of fish products by improving the quality of raw material processed. The issuing of some of the new crab and shrimp licences was justified as promoting regional balance, if only in the numbers of such plants. Little else can be read into other processing licensing actions that contributed positively to any of these policy objectives. The more common view is that these have had more of a negative than a positive effect on these objectives.

Very few industry participants who met with the Commission expressed any significant approval of recent licensing actions and indicated even less awareness of individual policies that govern licensing decisions. The general industry view is that there have been no consistent or explicit policy statements or specific criteria used for licensing actions. The issuing of licences for additional processing operations for traditional species has taken place when the general understanding was that limited entry licensing was in effect. New species processing licences (e.g. crab and shrimp) have been issued with no apparent or obvious consideration of the level of additional, total, or average, resource availability that should exist. The same policy deficiency appears to apply to the reactivation of inactive licences referred to earlier. While business plans are required to support a proposal to reactivate or to transfer a licence, clear standards on their contents do not appear to have been set. Equally, the assessment criteria and the approval process for such proposals are vague, as is the extent to which formal and rigorous evaluations are conducted in advance of Ministerial decisions.

The only licensing action that requires a public notification process is the proposed transfer of a licence from one location to another. The criteria for consideration of licence transfers set out in the announcement of the 1997 policy specify such requirements as contributing to the current policy objectives; allowing for combining to achieve Core status; and the use of NAFO Sub-Divisions as the geographical areas for transfers and to determine the regional balance between processing activity and resource availability. (The latter factor was never further defined or quantified). A total of 19 proposals to transfer licences have been assessed under this process. Eleven of these were approved and eight rejected.

Some industry members would prefer almost any stated policy that is adhered to rather than to be forever discovering that the apparent policy changes continuously. Others expressed the view that the only solution is to freeze all licensing actions for some unspecified length of time or until industry conditions change. While there is little support or justification for adding more processing operations, there are clearly needs to permit and encourage streamlining and/or consolidation of existing operations as well as improving processing capacity/activity and regional resource balance.

6.5.1 Economies of Scale and Location

While direct control of individual plant processing capacity was formally dropped in 1997, concerns still remain in the industry about the level of processing capability that exists, or which has now arisen, in both crab and shrimp facilities. Excessive industry-wide capacity can result in short processing seasons and low annual incomes for plant workers. Equally significant is the level of capital investment needed to create such levels of throughput capability and the net returns that must be obtained to support them. The excessive levels of investment that can arise because of competition for available raw material have the same sort of spiralling effect evident in open-entry fisheries. This situation creates an issue for the regulator of the processing sector in deciding the type and degree of management measure that it adopts. Much of this issue involves the scale of individual processing operations, where they are best located and the overall level of processing capability that is sustainable, or needed, in the context of the government's policy objectives for this sector. The Commission had an external analysis conducted on the application of economics of scale and location in fish processing. Much of the following assessment of these factors is based on that.

6.5.1.1 Economies of Scale

Economies of scale occur when increasing plant capacity results in successively lower average total costs of production. It is possible to achieve proportionately larger gains in production than the cost of expansion by increasing the capacity of a plant, resulting in a lower average total cost per unit of output. In simple terms, costs are spread over a larger number of units of output.

Economies of scale arise because of factors internal to individual plants (those the plant can control), and also because of external factors (those beyond the control of the plant). It is not possible to obtain forever declining average total costs as plant capacity increases. Beyond a certain point, inefficiencies begin to creep in and average costs go up. Diseconomies of scale also occur because of internal and external factors.

A company deciding to invest in any manufacturing facility usually faces an infinite array of scale possibilities. Selecting a particular scale of plant depends on the company's assessment of its potential market share and on its financial capacity and exposure to risk. In any industry, there is usually an entry-level scale below which it is not possible to operate profitably. Similarly, there is an optimum scale, beyond which increasing the scale yields no significant unit cost benefits.

The concept of economies of scale is relevant to fish processing, but the structure and operation of the fishery tend to confound attempts to give practical application to the idea. Two factors account for this:

- First, decisions about scale do not flow from a careful textbook consideration of market share and production possibilities. Rather, scale tends to be a function of what is needed to deal with supply possibilities.
- Second, the cost structure is often such that variable costs tend to overwhelm fixed costs in cases like shrimp and crab processing, causing scale considerations to be of limited significance.

The non-integrated part of the processing sector is supply driven on the input side. It means that virtually every decision a processing company makes – from structure to operations – is conditioned not by the final product market (as it is in most industries), but by the characteristics of the market for raw material. Their acquired share of the input market often determines a firm's share of the final product market, and not the reverse as in the usual manufacturing case.

One overriding factor drives the scale decision: unpredictability. Unpredictability applies to both long-term decisions regarding scale, and to short-term decisions regarding operations. For decisions affecting scale, unpredictability is a function of changes in the abundance of fish stocks, the seasonality of raw material supply, and even short-term factors such as daily swings in landings. The latter drives peak processing requirements on a plant-by-plant basis.

Industry members point out that shifting capacity from a minimally efficient to an optimum level may result in an increase in capital costs of as little as only 20%. Therefore, from a capital expenditure standpoint, there is little incentive to limit capacity to a level below that needed to meet peak supply. As well, the gains in reduced unit costs tend to be small as capacity increases. For example, the scale decision in the case of a shrimp plant is whether to invest in a four, five or six peeler plant (each peeler produces about 1,000 lb/hour). Icelandic plants operate with an average of five peelers, and Norwegian plants with an average of six. Most shrimp plants in Newfoundland and Labrador operate with six to eight.

The industry also feels that concerns about scale are largely irrelevant given the prevailing market for raw material supply. Raw material costs overwhelm average fixed costs, and therefore, the latter tend to be of less significance than they would in more conventional manufacturing industries. Variable costs (raw material plus operating) account for the overwhelming share of total costs. If no scale economies are possible in purchasing raw material and it accounts for upwards of 70% of variable costs, the per unit gains from increasing plant size may be relatively small.

In the circumstances, crab and shrimp plants operate with substantial overcapacity when actual and potential throughput is compared on an annual or even a six-month basis. This level of overcapacity is the result of highly seasonal raw material supply as well as individual decisions to scale plants to meet unpredictable peaks within that seasonal window. Fewer plants with existing average capacities could handle the volume if the flow were smoother over a longer period.

With individual plant capacity capable of processing more than is available on all but a few days during the season, naturally plants engage in competitive behaviour to cover overheads at all times. This serves to turn excess physical capacity into unsupportable financial commitment. In other words, the issue has less to do with overcapacity as such, than the ability to cover fixed costs. There would appear to be enough revenue in the industry to cover fixed costs in both the harvesting and processing sectors. However, competition effectively squeezes out the revenue needed to cover peak processing capacity.

6.5.1.2 Economics of Location in Fish Processing

From an economic perspective, resolving the location decision for a manufacturing enterprise is a matter of finding a minimum cost solution involving several inputs such as the following:

- Capital (plant and equipment)
- Raw Material
- Labour
- Utilities
- Infrastructure
- Administration
- Marketing
- Transportation and Storage

When location theory first emerged in Europe early in the 20th century, decisions about where to locate tended to be driven by two main factors: raw material and labour. These factors tended to account for the bulk of variable production costs. Firms were generally single plant entities, incorporating all functions in one location.

With advances in transportation and communications, the notion of the firm as an indivisible entity gave way to more flexible concepts, and location options expanded. Manufacturing, administration and marketing could locate in the most advantageous place for each function. Unless the manufacturing process relied heavily on a scarce input such as electrical energy, then factors contributing to capital costs, economic access to raw material and work force continued to be the critical variables determining plant location.

Proximity to the source of raw material tends to be a key criterion for plant location in the case of food processing for four main reasons:

- Unit costs of transporting raw material are generally higher than transporting finished product, so it makes economic sense to be close to source of supply;
- Short distances preserve quality;
- Proximity facilitates just in time harvest and delivery;
- Proximity facilitates better communication between suppliers and plants.

Locating adjacent to the source of supply is ideal, but in few cases is there a single point source for raw material. Added to the challenge is the availability of a suitable labour force, in terms of numbers, skill level and interest. Access to utilities and infrastructure (water supply, electricity, services, waste treatment) are also factors, though in most areas these are readily available at relatively low cost. Distance from market is also a factor, though this is ordinarily a relatively minor consideration.

In short, the location decision invariably involves a balancing of various input costs in order to achieve a least cost solution. However, the two key drivers, given their *relative* significance, are economic access to raw material and workforce.

Thirty crab and shrimp processing facilities have been established in Newfoundland and Labrador since 1996. These facilities represent a total investment of some $200 million. These investments were made in response to various factors including simple business opportunity tied to the substantial increase in abundance of both species, and a wish to sustain economic opportunity in communities where operators have historic ties to the fishery.

Decisions about where to locate, then, appear to have been somewhat opportunistic in cases where old groundfish plants were re-developed to house shrimp and crab processing equipment. Nevertheless, even in these circumstances, many companies would have had some options given the availability of existing facilities. For those constructing new facilities, the location decision would have been subject to a wider array of factors.

The inshore shrimp fishery offers a good example of the factors considered when deciding to invest. For most companies, broader considerations than simple profitability were at stake. With one exception, the companies investing in shrimp processing plants also have interests in crab processing. Many of the larger vessels from which they buy crab are also licensed to fish shrimp.

Harvesters expect a plant to buy *all* species caught, not just the one or two a plant considers most profitable. Failure to buy all species generally results in losing everything to a competing plant. No plant can afford to take that risk. Industry has noted that the need to protect their crab "buy" formed a key factor in the decision to invest in shrimp capacity even though most claimed to have considered it a sub-marginal investment at the time.

Companies want to minimize total costs and maximize net revenue. In the industry expansion era of the 1970s and 1980s, location decisions were more often driven by subsidy (often motivated by political or community development considerations) than financial viability. In the absence of such distorting subsidies in the late 1990s, primarily individual corporate financial and strategic criteria have driven location decisions.

Plant owners report that they consider the following key factors:

- Site characteristics (including the potential for redeveloping an existing plant);
- Delivered cost of raw material;
- Size and quality of labour force, including management and supervision;
- Suitability of infrastructure and utilities.

The priority attached to these criteria differs slightly depending on the individual company, though in both cases the selection process starts with the availability of (or search for) an existing plant offering potential for redevelopment. Companies generally agree that this tended to provide a least cost solution. With the demise of groundfish, there was a good supply of core-licensed plants from which to choose.

The large multi-plant and multi-species companies generally had one or two options for both shrimp and crab. The selection process then focused on the suitability of the location in terms of the other factors: labour force, raw material, infrastructure and utilities.

For the smaller single-plant companies with a history in groundfish, the choice came down to whether or not to convert the existing plant to crab processing. Many of the post-1996 plants fall into this category. There was no site selection process as such, just a decision on whether to redevelop the existing plant. The other factors influenced the assessment of viability. Shrimp is not an option for smaller companies given the high capital costs associated with entry into the industry.

How factors other than capital costs enter the investment decision is a matter of some interest from a policy standpoint.

- **Access to Raw Material**: All plants obtain supply from many vessels landing in several ports along the coast. Some locations may be more central than others, but with improved transportation (roads and refrigerated trucks); proximity of a plant to a wharf is not as much of an issue as it used to be. Distance as a cost factor is of limited significance since much of the cost is incurred simply in the loading and unloading process. Transportation cost is of minimal influence for crab, given the relatively high shore price (probably contributes on average less than 2% to delivered cost). Moreover, plants note it is not unit transportation cost they try to minimize, but net margin they try to maximize. Given intrinsic quality differences between 3L and 3PS crab, trucking from the Great Northern Peninsula can generate a higher net margin for a plant on the Avalon than buying locally.

- **Labour Force:** Most plants cite labour supply as an increasingly challenging issue given the ageing workforce, often limited numbers of people interested in working shifts in a processing plant, and the difficulty in finding adequately trained people for the sophisticated equipment now in use (particularly in shrimp plants). Moreover, plants report it is increasingly difficult to attract qualified managers and supervisors to smaller communities offering limited amenities.

- **Infrastructure and Utilities**: Most major ports in Newfoundland and Labrador tend to be well served with wharves, roads and electricity. Any differences in quality or scope are sufficiently insignificant to provide a compelling basis for selecting one location over another. Water supply is an exception, at least for shrimp processing. These plants need substantial volumes of fresh water for day-to-day operations (as much as a town of 4,000-5,000 people). A good supply of water can overcome minor deficiencies in other criteria (e.g. one plant owner cites good water supply as offsetting a less than favourable location from a vessel landing perspective).

The above illustrates some of the economic considerations that should go into decisions to establish and locate fish processing plants. While all of these have not been observed by industry at all times, they indicate the type of factors that government policy measures or actions could influence positively or negatively, or vice versa. While no single size or scale of plant is optimal for all fish processing operations in all areas, licensing decisions do not appear to have even remotely considered these factors in recent years. In addition, while industry cannot be fully controlled as to where they invest their own funds, there have been few explicit indications from government as to even the types of locations that it would prefer for fish processing operations. More consideration will have to be given to these factors in future licensing actions if any of the current industry problems are to lessened or resolved.

6.5.2 Capacity or Resource Thresholds

The notion of using capacity or resource thresholds as criteria in licensing decisions is related to the previous discussion of scale of processing plants. There is a certain minimum size of operation needed to operate viably, which implies the amount of needed capacity, or more importantly, the required minimum amount of raw material. If the target is the optimally efficient plant size for the given processing activity, the unsubscribed raw material requirement will be higher. In either case, a licensed operation is not justified until that amount of additional and unsubscribed raw material becomes available in the sector. The availability of necessary unsubscribed raw material must be factored into a variety of licensing actions, including new activities or reactivation of dormant facilities or even transfers of all or part of an existing operation.

The question of issuing new licences or reactivating dormant ones, however, should not even be entertained until the existing licensed operations have the total amount of raw material required by their numbers and sizes. When existing licensed facilities have sufficient raw material on average, then the question of how many other plants can be supported by additional unsubscribed raw material can be determined by simple mathematics. The only issue is whether the minimum or optimal efficient size plant should be authorized.

The additional dimension that could be added to the threshold concept is the average minimum length of operating season that should be achieved by plants. An earlier section showed that one of the major problems now faced by plant workers is getting sufficient weeks of employment in a seasonal occupation to ensure an income over 52 weeks of the year, the normal for a fulltime employed individual. This requires a working season of some 17 full weeks of work totalling 600 hours. Even that might not be the proper target for an efficient crab processing operation.

The **Report of the Inshore Shrimp Panel** proposed a target-operating season of 24 weeks for the average shrimp plant that also should have access to at least 8,000 tons of raw material. Shrimp and crab plants now tend to be single species operations that have seasonal, environmental and biological limitations, crab maybe more so than shrimp. Few multi-species non-integrated processing operations achieve more than six months of activity because continuous and adequate local supplies of raw material are generally very scarce before April and after October. Most catch quotas or open seasons do not last beyond those six months or certain species are not fishable in abundance in the so-called shoulders of the annual cycle. Moreover, in most areas, inshore vessels simply cannot fish 12 months of the year.

However, there is merit in specifying a target-operating season for fish processing plants that combined with available resource thresholds become quantifiable criteria on which to base decisions as to when to approve an additional operation. The actual standards for resource thresholds and target seasons should vary by the different types of processing operations and be developed in conjunction with industry participants.

6.6 REGIONAL BALANCE

The objective of achieving or pursuing regional balance in processing and resource availability is also a longstanding one. It has regained prominence in recent years in the shrimp fishery. The issue goes back to the days of the inshore cod fisheries when the proliferation of community stages and then feeder plants was a symptom of the desire to process catches where they were made. It appeared more latterly in the capelin fisheries where the question of balance was as much an issue of access by harvesters to a share of market driven quota as it was for processing operations.

This review will treat this issue in terms of the extent to which it is possible or feasible to align processing activity more closely with the sources of raw material. Industry participants who met with the Commission had few concrete suggestions as to how to define regional balance or what steps to take in this direction in the immediate future. (One suggestion was to prohibit trucking beyond two hours from a landing site, thereby ensuring processing takes place closer to the resource.) The existence of so much underutilized capacity makes it impossible at this time to address almost any case of imbalance that may be raised. The issue is really not as simple as a calculation of processing activity or capacity and resource availability. There are also such considerations as the locations of licensed fishing fleets, existing plants with a historical attachment to specific species, and a variety of economics of location factors that influence the best configuration of processing, catching and related support functions.

No arguments have been made to the Commission for additional special area provisions such as those for Labrador. Indeed, the few who suggested eliminating the requirement for landing and processing in Labrador were in a distinct minority. One suggestion was made for a special initiative for plants and fishermen north of 50° 30° that involved using the proceeds from additional special allocations of shrimp to offset the increased difficulties of developing other species in that area.

Currently, there are only a few species where regional balance really matters, i.e. crab and shrimp. The operational problems faced by existing active plants in these two activities highlight the difficulties of significantly affecting balance (in any form) by relocating or increasing processing capacity. That approach would be clearly one of "beggar your neighbour", especially when there still are inactive licences in both those sectors. Initiatives such as that undertaken by the shrimp industry to implement recommendations of the Report of the Special Panel on Inshore Shrimp may be the best approach to addressing this matter in the short term. An industry administered scheduling and distribution arrangement, which aims to reduce trucking and allocate landings to the closest plants first, will do more to eliminate real or perceived imbalances than any direct government intervention.

In the longer term, policy objectives and licensing actions that support a strategic plant or strategic processing regions concept will be the best approach to improving the balance between resource availability and the location of processing activity. The strategic plant/region approach should not be single species oriented but encompass all available fish resources. It should also recognize that the industry presently consists more of multi-species companies than multi-species plants. The tendency appears to be more towards the operation of specialized plants that can take advantage of the most modern equipment or processes than facilities that change over from one type of species processing to another.

Another significant influence on the location of processing facilities in the future will be the availability of an adequate labour supply. This will not just be a question of processing line workers but also the availability of technical and managerial personnel. There are increasing signs of a trend to concentration of population around larger communities or regional service areas. People are less and less willing to remain in communities or areas that do not have modern day amenities such as access to acceptable health care as well as social, financial and educational services. The long-term location of fish processing will be influenced as much or more by where adequate labour supplies exist as by proximity to the resource. The latter can be brought to the plant but people may not be willing to reside in some locations just because a plant has been constructed there. Addressing realistic concerns about regional imbalances should be a long-term aim of government's fish processing policy.

6.7 DELIVERY OF THE LICENSING PROGRAM

In addition to examining various aspects of the licensing program and associated policies, my Terms of Reference also called for an outlining of policies that would be required for incorporation of licensing into a proposed joint management board. This was not taken to cover the pros and cons of such an approach but rather what processes would be required in the area of processing sector licensing in the event of such an arrangement coming to pass.

The consultations held by the Commission quickly and clearly identified a pre-requisite in this regard. This is the overall issue of the province making the exercise and administration of its own jurisdiction more transparent, consistent and in tune with the needs and aspirations of those in the fish processing industry. This was the single most common theme from all meetings, whether with plant workers, harvesters or processors. The general tenor of the commentary was that the province must get its own house in order first.

Two aspects of this sentiment are related to delivery of the licensing program. The first is providing an opportunity for input by industry participants into policy development for management of the fish processing sector. The second is the final decision-making process for licensing actions. There is universal agreement that the current situation in both of these areas is unsatisfactory.

The provincial Department has no established and continuing advisory or consultative arrangement to obtain input from industry members on policy issues in management of the fish processing sector. This is a glaring deficiency in an industrial sector of such importance in so many parts of the province. A formal and ongoing consultative arrangement would provide valuable input to departmental policy decision-making. This arrangement would broaden the base of support for decisions and create a feeling of some collaborative involvement by the Department's clients.

The manner in which licensing decisions have been made over the last decade is the source of much concern and consternation for industry members. Except for licence transfers since 1997, there has been little, if any public indication of other licensing decisions until they were handed down. And then industry did not necessarily know, or were ever officially informed, of the reasons for decisions. The general lack of knowledge within the industry of the current and past policy basis for licensing actions borders on the unbelievable.

The single most common observation from all meetings during this review was that an arms-length body must make fish processing licensing decisions. This is not a new concept; similar recommendations have been made in the reports of different Reviews and Task Forces since 1996. The fishing industry in the past has been lukewarm to the concept of independent boards; therefore I am struck by the virtual unanimity on this point from all parts of the industry. The uncertainty and unexpectedness of some past licensing decisions has created this unprecedented position.

This arms-length board would administer the decisions on all licensing proposals or requests made to the government. It would do so against policy guidelines, criteria or directions given to it in a public manner by the Minister. There would be public notification of all requests or proposals for a licensing decision and the opportunity for statement of views by affected parties. All decisions made by this board and the rationale for them would be on the public record.

This arrangement would ensure much needed transparency and help re-establish credibility in the government's ability and intention to manage this sector effectively. Rather than diminish the stature of the Minister it would free him from a time-consuming and thankless task that the industry is now indicating it no longer expects him to perform. This would enable the Minister to spend more time charting new courses of action by his Department in support of a more viable and rewarding industry for all participants.

This discussion of these facets of the licensing approach for the processing sector leads to the inevitable conclusion that a number of changes are required. These will be described in Chapter 9 on the proposed new management framework for the processing sector.

CH. 7 RAW MATERIAL SHARING ARRANGEMENTS

This Chapter will review and assess the matter of input or raw material sharing arrangements for the processing sector. This will include a brief description of such systems, a short review of the theoretical literature on the subject, a comparative assessment of the benefits IQs have created for harvesters, a summary of past raw material sharing initiatives in this province and a more current assessment of the pros and cons of this concept as viewed by industry participants. It will conclude with a review of some terms and conditions that may be considered essential to implementation of such an approach. There will not be any attempt to actually design such a sharing system. That would have to involve a collaborative and focused effort between the industry and government.

The concept of allocating raw material or input shares to processing facilities is relatively new. It means fish production facilities would be authorized or entitled, through processing licences, to acquire up to a specified amount of available raw material for processing when and as the operator decides. That allocation or share would be a raw material purchasing entitlement expressed as a percent of all available quotas of a given species or of each separate quota of each species. These would not be catch quotas or allocations of fish in the water; these are granted only to licensed harvesters by the federal, not the provincial, government. The amounts of these individual raw material shares would be determined on some basis generally acceptable to all participants and the licensing authority. The most likely method of calculation would be one based on some specified history of processing activity. The share or entitlement would be reserved or protected for each licensed processor to the exclusion of others. In essence, this system would eliminate races to acquire raw material that some feel are as equally detrimental to processing operations as competitive fisheries are to harvesters.

While many fisheries throughout the world and Canada are now based on individual harvesting quotas (IQs), there are no known examples of similar sharing systems in the processing sector of any of the world's fishing industries. The harvesting IQ systems are used as a fisheries management tool to limit the destructive practices that arise in competitive fisheries and, in some cases, as a direct rationalization instrument. The new management model proposed for the

Alaska crab sector includes an approach that would institute IQs in both the harvesting and processing sectors simultaneously. However, this has not yet been implemented. That proposal is currently the closest to an actual implementation of this concept. It has been under development since 2000 and has still not cleared all opposition or obstacles.

Economics and related fisheries management literature contains minimal analysis of input sharing arrangements in the fish processing sector. Most academic and related research and analysis has focused on harvesting IQs/ITQs and their impact on fishing operations and fisheries management. Little consideration has been given to downstream impacts of these on either processing plants or final product markets. Few professionals have specialized in the theoretical analysis of these arrangements for the processing sector.

Dr. J. Matulich, Department of Agricultural and Resource Economics, Washington State University, however, has co-authored many papers on this topic, is considered one of the leading experts in this field, and has helped develop the Alaskan crab rationalization model. In a 1995 paper entitled *"Toward a More Complete Model of Individual Transferable Fishing Quotas: Implications of Incorporating the Processing Sector"* Matulich, Mittelhammer and Reberte indicate there are impacts associated with allocating shares to harvesters. Specifically, the authors say "*…Failure to recognize asset fixity by allocating the initial quota shares only to the harvesting sector will result in an unintended and unnecessary transitional, and possibly long-run, wealth transfer from processors to harvesters. In the long run, processors generally will be forced to exit the industry without compensation, and remaining processors can be either better or worse off.*"

Their analysis suggests that harvesting ITQs alone can result in a redistribution of benefits from processors to harvesters. If this actually occurs, then the common property nature of fish resources suggests this redistribution of wealth may not be in the best interests of society and rural communities in particular. The arguments put forth by the authors are theoretical and based on changes in capacity utilization rates in the processing sector after institution of harvesting IQs. In essence, they see the race for fish as being transferred from harvesters to processors with no compensating arrangements for the latter.

The assignment of IQs to harvesters in this province limits their need to race for fish. Harvesters can then better plan their operating periods and fish to maximize the net value of their harvest. Harvesters can sail at the opportune time whether this is weather or market related. Their season is not lost through unexpected major breakdowns because others cannot take their allocation. In some lucrative fisheries such as crab, IQs clearly improve the market power of harvesters and allow them to shop their quotas around to the highest bidder. In a competitive fishery, harvesters could not guarantee the delivery of any quantity of fish in a specific time period and the negotiated price was usually the final price received. Under IQs, the harvester knows the amount of fish he has to offer and can use this to improve the price received for his landings.

In the crab fishery, harvesting IQs, in conjunction with strong market demand and high levels of processing capacity, have apparently increased the market power of harvesters. As a result, the final price paid harvesters is often beyond the negotiated price. Anecdotal evidence suggests that in 2003 these payments, before the fishery shutdown, ranged from $0.20-$0.40 per pound beyond the negotiated price for the small boat sector to $0.70-$1.00 for larger vessels. Similar results do not seem to have occurred in other IQ fisheries such as Gulf shrimp and the various inshore cod fisheries of recent years

While total incomes of harvesters have increased substantially since the 1995 introduction of IQ's in the crab sector, it is difficult to conclude this, in and of itself, has created a transfer of wealth from processors and plant workers to harvesters. The dynamics of the industry suggest that there are many factors contributing to increased harvesting earnings, such as the establishment of a new price settlement mechanism, increased quotas for higher valued species, favourable price levels and exchange rates.

7.1 AGRICULTURE SUPPLY MANAGEMENT

The supply management systems in dairy, broiler chicken, and egg production in Canada are direct production quotas. Dairy and broiler production quotas are at the primary production level and can be considered comparable to IQ's in the fishing sector. In both of these cases, primary producers supply secondary processing facilities that, in turn, supply final product to food industry distributors and the final consumer. Prices are usually administratively set on the basis of average industry costs. An industry board usually sets the production quotas for all producers and usually some degree of accumulation is allowed.

These supply management systems were developed in Canada in response to the high degree of instability in the primary agriculture sector. The systems have been successful in eliminating much of the instability on the production side. Most of the criticisms of these production models arise from the higher consumer prices that result from supply management versus a free market system. Supply management results in a lower level of output than in a market-driven system and, therefore, prices are higher than they would be in the absence of this system.

Such direct market distortions from supply management would not be evident in wild fisheries. The limits on total supply are set by natural biological factors and/or stock management measures (TACs) and usually seldom by harvesting or processing capabilities. Processors tend to exert little influence over final product price as they are price takers in essentially a global marketplace. As such, harvesting IQs in commercial fisheries have different objectives and effects from supply management systems in the agriculture sector. Any system of individual raw material shares in fish processing would also have different purposes and would not have these consumer market distorting effects.

7.2 THE PROPOSED ALASKAN CRAB INDUSTRY MODEL

The Alaskan snow crab fishery has serious overcapacity in the harvesting and processing sectors. Crab landings have declined from over 300 million pounds five years ago to an announced initial quota of 20.8 million pounds for 2004. The Alaskan crab fishery is currently a competitive fishery with total landings occurring in 3-4 days. In response to this situation, harvesters, processors and governments have developed a rationalization plan that includes a combination of Individual Fishing Quotas (IFQ), Processor Quotas (PQs), Community Development Quotas, processing regions and a new price-setting model somewhat similar to the one used recently in this province.

Each harvester will receive an allocation with the total allocations summing to 100 percent of the catch quota. The processing quotas cover 90 percent of the total TAC. The remaining 10 percent will be allocated for community development purposes. This is intended to offset the imbalance that would result from harvesters and processors having complete control of the resource.

Harvesters will be required to land up to 90 percent of their quota to a processor in one of two regions. After this threshold is reached the remaining quota can be landed to any processor. This is to insure harvesters have a degree of flexibility and that competition and flexibility remains in the system. Harvesters can form co-operatives to obtain operational efficiencies.

The quotas for both harvesters and processors will be transferable; however, leasing is prohibited outside harvesting co-operatives. A low interest loan program will be established to allow crewmembers and captains an opportunity to acquire new or additional quota. This will be funded through fees collected under the rationalization program. There are caps on the ownership of quota by any single harvester and by vertically integrated processors. There are also regional restrictions on concentrations of quota ownership.

The proposed harvesting shares are based on the best of several yearly catch combinations, depending on the area. Processing shares were based on either 3 or 4 seasons of processing activity, also dependent on area.

As well, if price negotiations fail between harvesters and processors, then a binding arbitration model will be used to resolve the dispute. This model is similar to the system that was used in this province; however, the method of arbitration is not final offer selection. There is an interest-based phase with a review of market information and then a presentation to the arbitrator.

Opposition did arise within the Alaskan industry and the U.S. government since development of this model. Both government officials and fishermen had concerns about the possible reductions in competition and the resulting effects on prices, fishermen's incomes and the future of communities. The proposal is still winding its way through the legislative system and might still be passed by the end of this year.

7.3 RAW MATERIAL SHARING PROPOSALS - NEWFOUNDLAND AND LABRADOR

There have been several attempts to establish raw material sharing arrangements for processing companies in this province since the mid-1990s. These include: the interim April 1996 Fishing Industry Renewal Board (FIRB) report and subsequent capelin pilot project; the 1999 proposal by FANL to the Department of Fisheries and Aquaculture for shrimp (DFA); and a 2001 agreement between FANL, the FFAW/CAW and DFA for shrimp. As well, a raw material sharing arrangement has been used for 2J crab in Labrador and there have been unsuccessful attempts at similar sharing arrangements for 4R shrimp.

7.3.1 The FIRB Report (April 1996)

In April 1996, the FIRB submitted its interim report on a new policy regime for the processing sector to the provincial government. The report proposed a raw material sharing arrangement as the basis for management of the processing sector. Key features of the model included plant raw material allocations for licensed processors based on species allocations to under 65 ft. fleets; the establishment of processing regions and the transferability of the production quotas. The processors entitlements would be expressed as a percentage of available quotas based on a best years' combination of production history. Transfers would be freely allowed within zones. Ministerial approval would be required for a transfer outside a zone. FIRB claimed the following as some of the significant benefits of a raw material sharing system: a more constant supply of raw material; reduced seasonality; enhanced quality and better market returns; more stable and meaningful employment; and, a resource-processing capacity balance.

The report indicated harvesters perceived certain shortcomings in such a system. They had concerns about too much control by processors over the activities of fishermen and saw lower prices as the only result. Two preconditions for such a system for processors were IQs for harvesters and a clear price setting mechanism. The FIRB indicated concerns of processing workers could include fewer total jobs and work being from a unionized plant to non-unionized facilities. The report indicated that resolution to such issues would require negotiations between harvesters and processors before the model could be implemented.

7.3.2 The 1996 Capelin Production Quota Pilot

The Capelin Production Quota Pilot Project was implemented in the 1996 capelin season to test the raw material sharing model put forward by the FIRB. There were expectations that the new model would help rationalize the industry, result in a more orderly fishery and improve product quality, as processors could be more selective over purchases. The sharing was carried out by the department and included a minimum share to inactive operators and a formula-based share for active licence holders with a minimum total allocation. Transfers were permitted automatically within NAFO Sub-divisions and required ministerial approval outside of them. Eighty-five individual shares were granted with 64 plants utilizing some of the allocation; thirty-two plants transferred some of their share.

There was minimum planning time available from when the decision was made to conduct the pilot project in a high volume fishery that occurs over a few weeks. Some of the main criticisms of the pilot project were such claimed outcomes as the fishery opened prematurely, the price to fishermen was lower than normal, excessive dumping and high-grading of capelin occurred, and some companies were kept operating when they would not have otherwise. Other problems raised about the pilot project included the manner in which shares were developed, the transferring of blame for plant closures to industry from government and increasing powers of companies in the fishery.

The capelin fishery may not have been the appropriate activity in which to evaluate this concept. The intensity of the fishery provided very little opportunity to really test all elements of such a system. In any event, the pilot project was not considered to have provided evidence of any merits in production quotas. The concept was dropped from the final report of FIRB in the Fall of that year.

7.3.3 The 1999 Proposal for Shrimp Production Quotas

In July 1999, the Fisheries Association of Newfoundland and Labrador (FANL) proposed production quotas, or raw material shares, for shrimp processors. The Association developed the sharing arrangements which it requested be imposed as a condition of license by government.

The main elements of the proposed arrangement were based on the April 1996 report of FIRB. The proposal established two quota regions for the province, the Northern Peninsula and the rest of the Province. Quota shares would be completely transferable with no restrictions on transfers within a zone. Transfers between regions would require Ministerial approval. Transfers could not occur into a region with surplus capacity versus actual landings.

A wide variety of benefits for processors, harvesters, processing workers and the public sector were claimed in support of the proposed arrangement. The claimed benefits to processors included operational efficiency, production planning, continuity of supply and orderly marketing. The benefits that would flow to harvesters and processing workers included stable employment, improved incomes, predictable and consistent employment and equitable sharing of harvesting income. The public sector benefits that were highlighted included community and industry stability, fairness in access to shrimp processing, transparency in decision-making, improved quality of Newfoundland and Labrador seafood, improved market returns/taxes and an innovative and equitable solution to a longstanding public policy challenge.

The proposal also indicated that the collective bargaining process would offset concerns over the potential impact of production quotas on competition because processors would still be required to compete for raw material. The reduced competition to quickly purchase raw material would be replaced by higher returns from the catch because of a reduced number of landing ports, increased landings at plants, and from specific handling/quality measures.

This proposal did not materialize because of an eventual lack of sufficient agreement within the industry. A similar proposal to government in 2001 also failed because of the lack of a final agreement amongst parties.

7.4 BENEFITS AND PROBLEMS OF INDIVIDUAL RAW MATERIAL SHARES

It is possible to conceptualise a number of theoretical benefits and shortcomings of raw material sharing arrangements simply from intuitive reasoning. It is more difficult to assess the actual outcomes of a system that has not been implemented anywhere and for which, consequently, no empirical evidence exists. A considerable amount of good and faulty argumentation for and against introduction of this concept in the province's fishing industry already exists. This includes the ground-breaking proposal of the FIRB in 1996, the two attempts to introduce it in the Northern Shrimp inshore fishery, the ill-timed proposal of last summer and the hardened positions that have formed on both sides since then. The following is an attempt to assess this concept in today's terms, which is really in the context of the current situation in the province's crab and shrimp sectors. In doing so, the existence of other activities in the fishing industry cannot be ignored. That would be a case of dealing with the most obvious problems and creating another set in the process.

7.4.1 Benefits of Raw Material Shares

There are some logical advantages attributable to a system that allocates individual rights or access in what would be otherwise an open or completely competitive arrangement. The situation of fish harvesters in competitive fisheries can be taken as a case in point. Lack of individual security of access to a common pool resource creates the necessity to engage in economic behaviour that would not be rational in most other circumstances. The resulting competition usually leads to the eventual disadvantage of all participants. While there is empirical evidence of the effects of individual shares in the harvesting sector, there are no existing systems to assess whether the same results would come from such arrangements in the processing sector. The theoretical and conceptual benefits and problems of individual raw material allocations or input entitlements fall into two main categories: economic efficiency and industry structure.

- **Economic Efficiency Benefits:** The economic efficiency improvements are outcomes or actions that will decrease operating costs or increase operating revenues. The following outcomes would fall in the category of economic efficiency gains or benefits: stability of operations would result from more certainty in improved production and financial forecasting and planning as well as longer utilization periods for capital. Operating efficiency would flow from utilization of existing capital infrastructure, introduction of new capital to achieve technological and other innovation and the emergence of more efficient producers.

- **Industry Structural Benefits:** Industry structure benefits would improve general operating conditions, increase the level of average product value and improve the financial condition of all those engaged in the fishing industry. This would result from the following changes in the structural conditions of the industry: greater opportunity to improve product quality, the final product value maximized by better product utilization, more effort on developing secondary production and increased duration and conditions of employment.

7.4.2 Difficulties with Raw Material Shares

Similarly, some likely difficulties or problems with individual raw material shares in the processing sector can be classed as economic efficiency or industry structure.

- **Economic Efficiency Problems:** The economic efficiency problems or shortcomings of individual processing input entitlements are outcomes or actions that will increase operating costs or reduce operating revenues. They are likely to include the following: higher capital costs for the successor operators, added costs for administration of individual shares and the costs of retiring redundant capital.

- **Industry Structure Problems:** Industry structure problems are outcomes that change the current relationships between harvesters, plant workers and processors, that affect the current relative positions within the industry or which could lead to unacceptable activity by industry participants. These include such matters as: changed regional concentrations of processing, processing employment losses if consolidation occurs, increased pressure for selective harvesting and misreporting, limiting the competition of raw material, placing another layer of regulation on the industry and discontent with sharing formulas and transfer provisions.

These positive and negative aspects of raw material sharing arrangements somewhat selectively cover the gamut of the theoretical reasons why such systems should or should not be introduced to a processing sector management system. The final determinant of such decisions is usually made on a more practical and shorter list of items that are considered the most pertinent ones now. Some of the theoretical points for and against such arrangements may only be known with absolute certainty in the long-run; at which time none of the current decision-makers will be around. (For, as John Maynard Keynes pointed out "in the long-run we will all be dead".) Of much more relevance are the current and projected conditions in the industry that are used as arguments for and against such a concept.

7.5 PRESENT INDUSTRY POSITIONS

The fishery sector, at present, consists of a number of diametrically opposed positions on the merits of raw material sharing arrangements. Those in favour are most of the crab and shrimp, and some other, processors. Those opposed include most harvesters and plant workers, some processing operations and a few community organizations. The latter are generally in favour of community control of processing facilities, which excludes issuing licences or allocations of raw material shares to processing companies.

Processors' Views: Almost all crab and shrimp processing licence holders have indicated strong support for a system of individual raw material allocations. A few such licence holders have expressed no views to the Commission and a few others apparently are reserving judgement. A somewhat formal case for such a sharing arrangement was presented by a group of companies collectively representing 14 holders of crab processing and 9 holders of shrimp processing licences. The following is a summary of the arguments contained in that presentation.

Processors indicate that the crab and shrimp processing sector operates in a fiercely competitive raw material market. This produces unsustainable raw material prices and compromises raw material and product quality. Far too much management energy is expended on securing and retaining raw material supplies. The industry is too confrontational and unable to reconcile competing claims. Harvesters have security in their IQs while processors have no secure or predictable source of raw material supply. Nor do they have the benefit of accreditation under the Fishing Industry Collective Bargaining Act. They consider the FOS system of bargaining to be flawed in that it does not produce the real price but simply a base price from which destructive competition starts. Consequently, they feel fishermen have gained an un-sustainable portion of the value produced, in the order of 82 percent for crab in 2003 when "bonus payments" are included. In such circumstances, the industry cannot achieve the maximum return that is possible from the final market because the current industry structure results in marginal operations that cannot produce even minimal profits and provide contributions to overheads.

They claim the two preconditions outlined in the FIRB interim report have now been met: fishermen have IQs and a transparent price setting mechanism (FOS) is in place. There is, therefore, no longer any reason not to introduce raw material sharing to the processing sector.

They envisage the proposed system as providing individual raw material shares based on the available inshore fleet quotas that each licensed processor would be entitled to acquire from individual fishermen. The latter would still be able to sell to whomever they wished; any licensed processor who acquires more than his entitlement would have to pass it on to another through some established protocols to ensure fairness in terms of product quality, size etc. The individual shares would be based on some combination of years of production and subject to some independent arbitration arrangement to ensure no significant gains or losses for any single operator. There would be rules as required by public policy considerations for transfer of shares between operators and regions of the province.

Such a system would allow the industry to reap the higher benefits that can be acquired from the marketplace through more efficient deployment of vessels and processing facilities. The resulting certainty and stability would enhance the industry's ability to make more money. There would be a larger pie to share among all industry participants, fishermen, crewmembers and processors and plant workers. More people would be employed in safer and more productive work environments. The duration of employment would be longer as product diversification opportunities would increase. The relevance and value of collective bargaining would be improved with increased prices being paid to harvesters. There would also be increased incentives and opportunities to improve product quality and to reduce overall costs. The final benefit would be a stable business environment and a positive investment climate that would contribute to rural revitalization.

This production sharing system must be instituted first in crab and shrimp together. It should then be closely followed by groundfish. It could be applied to any species that has reasonably stable annual abundance. This would seem to rule out volatile species such as mackerel and possibly capelin.

Views of Plant Workers and Harvesters: The positions of harvesters and plant workers on raw material sharing are almost completely the reverse of those put forward by processors. Most of these are based on no extensive or tangible explanation of what processors are seeking in a sharing system. No formal and objective discussions have taken place between the parties since early last summer.

Most plant workers who met with the Commission expressed grave doubts about the merits of such a system and the motives of processors in seeking them. The most common view was that this was an attempt by companies to concentrate control of the industry, to reduce the numbers of plants and jobs and to create an asset that many operators would immediately sell off. Some plant workers felt such raw material shares should be community-based so that companies could not transfer them away as they saw fit. Few, if any, plant workers seem convinced that any good would come from such a system. There is a lack of trust by plant workers because of the motives they feel are really behind this concept.

Likewise, almost all harvesters who met the Commission expressed almost complete opposition to this type of proposal. Fishermen are convinced that this is simply an attempt to drive down prices by gaining control of the source of supply. Fishermen will then be told when to fish and where and to whom to sell their catch. Some fishing seasons will be lost completely because harvesters feel fish processors will not purchase certain species in the only times they can fish them. Some fishermen expect they will not be able to sell some or all of their catch if their buyer's share is filled before their IQ is taken. They believe they would then be forced to accept a lower price from another buyer who would be in the driver's seat.

Harvesters also share plant workers' concerns that this will lead to greater corporate concentration, fewer plants and decreased competition for catches. They do not accept arguments that more benefits will be created for all, that quality improvements will be achieved and rewarded, or that operating seasons will be expanded. They also consider the FOS approach to be flawed in that the price-to-market formula does not give fishermen the proper return for catches and that they have inadequate information on the market returns from processing operations. In many cases, harvesters were not even willing to engage in any discussion of the idea.

7.6 SUMMARY OF CURRENT STATUS

It was not possible for the Commission to find any common ground between these divergent views given the entrenched nature of them, the present state of industry relations and organization, and the wide scope of the policy review that had to be conducted. Companies are apparently taking the position that they see no good reasons why the proposed sharing arrangements should not be put in place at this time, nor that the concurrence of other industry participants should be a necessary precondition. They are taking a wait-and-see approach to government's response to this concept and to problems they have with the collective bargaining system. Harvester and plant workers expressed almost complete scepticism and distrust about processors' motives and their claimed beneficial effects of raw material sharing. Quite simply, companies have not convinced them that the merits and benefits being claimed for individual raw material shares are real or will even happen. In fact, the doubting and opposition has grown over the course of this year.

This concept is new and untried because it has not been implemented in any fish processing industry to this time. Some of the comparisons that are being made to IQs in the harvesting sector may indeed be valid. Whether the claimed improved efficiency results will be similar is really an unknown and is probably behind most of the opposition being expressed. It is worth noting that the debate continues to rage as to the extent to which the claimed positive results of harvesting IQs have actually materialized. Fish processing and harvesting are different economic activities and would not necessarily produce the same results from an individual raw material sharing system.

No other substantive alternatives have been suggested to the Commission. The closest was a suggestion that annual production limitations on each licence would achieve the same intended results of more orderly operations without increasing corporate control or lessening competition. A related possibility was weekly limits on both catches and production. Of the two, the latter might be more effective although more cumbersome to design and implement. It would also require concurrence by federal authorities who might not wish to implement the required weekly catch limits without industry consensus.

The extent to, and the manner in, which individual raw material sharing might be used as part of future management of the processing sector will be dealt with in Chapter 9.

CH. 8 THE REGULATORY FRAMEWORK FOR FISH PROCESSING

The Terms of Reference require me to review the regulatory framework used for management of the fish processing sector and to recommend changes to correct any deficiencies. The basis of this regulatory framework is the Act and regulations that are used to implement policies in the area of fish processing. However, the framework also includes the activities, operations and associated processes that are used to implement the provisions of the Act and regulations. There are two broad functional areas involved. One is the direct industry management actions aimed at controlling the numbers, activities, capabilities and locations of fish processing operations. This could also include the attaching of certain terms and conditions to licences to implement particular policies. The second is the more quality-oriented fish inspection requirements that all who land, transport, store and process fish are required to observe. The latter area also involves surveillance and enforcement activities that are necessary to ensure compliance with the overall rules of conduct imposed on licensed operators. The objective of this review will be to determine where there are deficiencies in these areas and identify corrective measures or actions.

Consultation meetings with industry participants, understandably, did not address anything in this overall subject-matter area beyond the question of whether proper or adequate deterrents exist. As indicated in other chapters, the general view on both counts is no. It is difficult to discuss a legal and technical area with those who may be the subject of the regulatory activity. Consequently, much of this Chapter will be based mostly on reviews of internal departmental information, discussions with those who have responsibilities in the area, one of the external reviews conducted for the Commission and previous experience with, and exposure to, regulatory framework issues. This, then, is not a legal review conducted by legal experts but a more pragmatic assessment of what is required, what appears possible, and what may need to be provided for in the future for effective provincial management of the processing sector.

8.1 THE FISH INSPECTION ACT AND REGULATIONS

The province's management initiatives for the fish processing sector are conducted under the Fish Inspection Act and its associated regulations. These initiatives include all the licensing policies and the operational provisions associated with them. A number of amendments have been made to the Act in recent years to ensure clarity of powers of the Minister for certain licensing actions. A number of court challenges to licensing decisions or powers have been made and some of these are still before the courts. This means some of these matters remain indeterminate at this time. There may a be a requirement for future amendments to the Act if its current provisions are deemed not to give the Minister clear and adequate powers to carry out the government's fish processing sector policies.

The province's authority to license fish processing stems from its powers in respect of fisheries which come from its authorities under Section 92 of Constitution Act to regulate for matters of property, civil rights, and in respect of provincial lands. These powers have been clearly interpreted by the courts to mean that the provinces have the authority to license processing facilities that operate on provincial lands (and require the holding of a licence by them). The reverse is the courts' decisions that the federal authorities do not extend to requiring plants to have a federal licence. The province's Fish Inspection Act **empowers** the Minister to issue licences but it does not **require** him to do so. The province should strenuously defend this authority to require processing facilities to obtain a licence before they can commence activities, and the implied powers to specify the types of species, the types of products and the location to which the licence applies. Also, the department should be always mindful of the specific authorities it has in this area of jurisdiction when wording its management policies, its regulations and regulatory documents and should receive legal advice in each and every such instance.

Recommendation 8.1

I recommend:

- ***That the Department take all necessary steps to defend and properly exercise its authorities to manage the fish processing sector by obtaining high quality and authoritative legal advice on all regulatory measures it undertakes.***

The Fish Inspection Act was first passed in 1954 and amended several times since then. There is a generally accepted view that considerable modernizing, updating and house cleaning are in order. This would cover both the Act itself and regulations made under it. Some of this housecleaning may involve no more than removing archaic provisions for activities that no longer exist. A regular Legislative Review would be a good practice to adopt in this regard because it would reduce the need for periodic major revisions as are currently required. It would also serve to force the regular addressing of problem regulatory areas or lack of necessary authorities. Another recent report suggested renaming the Act to reflect more accurately the current purposes for which it is used. I would leave a final decision on this to the conduct and outcome of the first Legislative Review.

Recommendation 8.2

I recommend:

- ***That the Department institute an annual Legislative Review of the Fish Inspection Act and the associated regulations to ensure that both are up-to-date and clearly provide the necessary authorities for all actions taken under its provisions. This should include the specific new provisions proposed for the Quality Assurance Program.***

8.2 ADMINISTRATION AND ENFORCEMENT

One of the most important aspects of any regulatory framework is the existence of adequate capabilities for administration and enforcement of its provisions. This includes enforcement of the regulations, investigating of possible violations, the laying of court charges and the obtaining of convictions. The overall objective is to ensure that adequate deterrents are created or a satisfactory level of compliance is achieved. Enforcement of regulations under the Fish Inspection Act is actually law enforcement and requires certain established processes, procedures and operating rules that all involved are aware of and observe. Such arrangements are needed to ensure effectiveness, transparency and fairness in the activity.

The experience of the Department with extensive enforcement of Fish Inspection Act regulations only started with implementation of the Quality Assurance Program. I sense the activity is still suffering from growing pains in terms of achieving an effective and consistent enforcement function. Emphasis on this activity has varied in recent years with the consequence that some uncertainty exists in operational planning and conduct of the Department's enforcement function.

I believe any enforcement activity must be carried out in a consistent, professional and independent manner. This requires a certain level of training in law enforcement, adequate operating resources, established processes and procedures for handling detected infringement or violations, a clear code of conduct for the function and a separation of policy making and enforcement. Some of these requirements are not fully in place at this time and should be addressed on an urgent basis.

Recommendation 8.3

I recommend:

- ***That the Department bring its enforcement activities up to the standards expected of a law enforcement function by ensuring that required training, resources, procedures and processes, code of conduct, annual operational plans, enforcement policies and organizational arrangements are properly provided for and contribute to the effective operation of this function. This should include the necessary organizational change to separate Departmental Headquarters responsibility for enforcement from the development and implementation of fish processing policy.***

8.3 DETERRENTS AND COMPLIANCE

Consultations and the external review of the Quality Assurance Program both raised several points regarding the use of fines, court charges and other measures in creating a deterrent to violations of fish processing regulations. The general tenor of these is that ticketing should be used more for minor offences, court charges used for more serious and repeat offences, and the general level of fines should be increased. Some of the present rates of penalties are regarded as little more than a routine cost of doing business. Some did stress the role of education in achieving increased compliance with quality related requirements; often violations occur because of lack of knowledge of the effects of certain handling practices and often simple ways to avoid them.

For different reasons, processors and plant employees did not advocate use of the most powerful tool of the Minister in gaining increased compliance: the suspension of a processing licence. This position was taken because of the adverse effects such an action would have on plant workers who receive inadequate hours of work in a short operating season. This is a severe penalty to a processor because all earnings stop while it is in effect. This really shows that even the threatened use of this measure is an effective deterrent.

In this area, there is room for improvements that do not need a lot or argumentation in support. Most everyone supports a ticketing system, increased levels of fines that can be imposed by the courts, and recognize the severity of potential licence suspensions. These are obviously the measures the Department should adopt in its efforts to create deterrents to infringements and to increase the level of general compliance. These efforts should also use continuing education as means of achieving improved actions in the area of quality handling requirements.

Recommendation 8.4

I recommend:

- ***That the Department develop a ticketing system for first and minor infringements of all Fish Inspection Act Regulations, increase the general levels of fines and develop a policy for use of licence suspensions. The latter should include an indication of the circumstances that must prevail before this latter measure could be used.***

CH. 9 NEW MANAGEMENT SYSTEM FOR FISH PROCESSING

The preceding Chapters should have left no doubt that a renewed effort is needed to address the problems still plaguing the fish processing sector of this province. Many of the deficiencies covered earlier are not necessarily any different now from what they were 10, 20 or even 50 years ago. The species mix has changed, harvesting and processing capabilities are more sophisticated and gross value of output is at an all-time high. However, the basic problems of the sector remain rooted in excess capacity with the associated results of seasonal operations, unsatisfactory levels of income, instability and volatility and less than optimum total returns from seafood production. These types of conditions existed in the salt fish industry, then in the ensuing frozen groundfish operations and have been allowed to arise again as the industry went through its latest transformation into a shellfish-based sector.

It is easy to lay all these problems at the feet of the provincial government that has legislative authority over the processing sector. However, government seldom issues excessive numbers of licences of its own accord but in response to often unending pressure from companies and communities to do so. On the other hand, companies resist attempts to limit individual capacities and establish excess processing capabilities even when the total number of licensed operations is limited. Communities, harvesters and plant employees also create pressure for additional capacity to address some local need for jobs or an outlet for landings. Moreover, the fishing industry as a whole has not been able to establish the necessary discipline to eliminate unproductive practices that create derby-type operating seasons. Thus, the industry has been unable to achieve the increased benefits that high levels of quality and further value-added production would bring to all participants.

Currently, leadership is needed from all segments of the seafood processing sector in this province, including the government. This leadership must begin with adopting redirected policy measures for management of the sector that are clearly articulated and maintained, address the current urgent problems first, and lay the groundwork for resolving the longer-term issues. This leadership must also involve forging alliances with the other direct participants in the processing industry, who in turn must display similar leadership to move this industry forward in a manner that benefits all. The proposals in this section for new management measures will fail otherwise.

It should be stated that a laissez-faire or market-driven approach is not a realistic option to propose. It was rejected by the FIRB in 1996 and by other provincial Panels and Task Forces since. I see no reason to suggest the greater public good would be served by taking this approach at this point. A viable industry would contribute more to the overall provincial economy than would an unviable sector. However, some or all of the available economic rent can be sacrificed in favour of slightly larger levels of employment and numbers of operations in more locations and still have a viable, but not a rent-maximizing industry. Now we have neither. This sort of end point is implicit in the approach that will now be outlined. This greater public good objective does not seem achievable if left either to purely private investment or to unfocused or undisciplined political motives.

This Chapter will address, first, the matter of long- and short-term policy objectives for management of fish processing. Then a number of specific changes in the licensing approach will be outlined. Those will be followed by additional measures, adjustments or approaches the Commission feels are necessary to put this sector on a better track to meaningful benefits for all those engaged in it. These proposed courses of actions are all in the purview of the Minister of Fisheries and Aquaculture; consequently, the recommendations are confined to matters in his jurisdiction and do not require actions by other authorities. As indicated elsewhere in the report, the final recommendations in this Chapter are based on all the matters raised with the Commission, additional studies and assessments carried out for the Commission or by its staff and the often inescapable conclusions to which they clearly led.

9.1 POLICY OBJECTIVES

When the current licensing policy was announced in 1997 the following objectives were adopted:

- to promote industry stability, competitiveness and viability;
- to facilitate a regional balance between resource availability and industry capacity on a regional basis;

- to enhance the maximum operating period possible for processing plants; to enhance the quality of fish products;
- to maximize the economic benefits associated with their production.

Industry generally accepts these as valid objectives for management of the processing sector and raised no issues with them per se. As well, the Special Panel on Corporate Concentration indicated some change in order of priority and slight re-wording might be worthwhile. These current statements are long-term aims for the government's management of this sector that have not been attained; some would argue they have been hindered by government actions over the last decade.

Recommendation 9.1

I recommend the following as the longer-term objectives for government's involvement with this sector:

- ***To provide the regulatory conditions for a stable and competitive processing sector to exist with minimal public support;***
- ***To ensure employment levels that provide adequate incomes;***
- ***To promote cooperation in the industry that enhances product quality and optimizes total returns from processing available fish resources;***
- ***To seek a degree of balance between regional resource availability and regional processing capacity so that viable fish processing activities contribute positively to rural economic conditions.***

In the short term (the next two years), government must concentrate on resolving the immediate problems that make each year a crisis situation. In that period, the main priority should be on reducing or removing the annual operational instability that has been a feature of the industry for several years. This requires coordinating the efforts of the fisheries and labour ministries in their respective areas of authority to ensure that actions or decisions are coordinated and taken in concert. This report will only address the fish processing sector management issues; but the unavoidable connection to fish industry collective bargaining cannot be ignored completely and will be commented on later in this Chapter.

The immediate initiatives of the Department for management of fish processing should focus on measures that stop the destructive competition that is eroding viability and preventing the achievement of increased benefits from quality and further processing activities. It should also address the issue of short operating seasons and the adverse effects on income levels. Special interventions may be necessary to achieve some of these short-term goals as licensing actions or other management measures generally tend to take time to have effects.

9.2 LICENSING MEASURES

A number of licensing measures or policies seriously require amendment, change or augmentation because of the changed circumstances in today's industry. These range from some fundamental changes in approach to the addition of some new policy measures to address conditions that have developed recently.

9.2.1 Inactive/Cancelled Licences

There are a large number of both cancelled and inactive licences on official lists in the Department all of which seem to have been accorded the same possibility of being reactivated. As proposed below, all of these would now have to meet the resource-threshold test, which effectively means there is no likelihood of any of them being reactivated until a major resource increase appears. Therefore, it is time to move on from this and allow economic adjustment to take its full course, stop maintaining false hopes and potential threats to the active operations that are still striving to achieve long-term stability and viability.

Recommendation 9.2

I recommend:

- ***That all inactive and cancelled licences be considered to exist no longer and that lists of them not be maintained. All such operations/facilities/locations must then start over completely under universal application of the resource-threshold criteria to licence proposals (as outlined below). Qualitative factors should no longer be used to support a reopening proposal. As well, existing operations should be deemed inactive as soon as they fail to meet a minimum production requirement in***

each of two consecutive years. This minimum production level should be at least five percent of the rolling five-year average for the facility. When that requirement is not met, the licence immediately ceases to exist.

9.2.2 Amend Core/Non-Core Licensing

One of the most pressing changes needed in the licensing of fish processing operations is to amend the Core/Non-core approach immediately. This was a laudable notion in the beginning. The non-recovery of groundfish, the shellfish transformation, the ensuing additions to capacity and the locating of several crab, shrimp and other species licences in non-strategic locations have all reduced this to simply a two-tiered species licence arrangement. Indeed, the open-endedness of Core eligibility for any species (except crab and shrimp) creates potential and actual excess processing capacity problems for emerging species as well as recovering ones. Most current viable processing opportunities are found in crab, shrimp and cod.

The potential of most other species, whether traditional or emerging, to support similar activity is not great and likely has already been exceeded, except maybe for the most undeveloped of the emerging species, e.g. sea cucumber. With this narrow base of species, Core/Non-core licensing is a recipe for adding or activating excess capacity whenever a species shows any sign of being viable. The other curious feature of the present licensed industry is that most of the larger companies have moved to operating separate specialized processing lines or even facilities. The multi-species operation is now more a characteristic of smaller, single plant companies that are often Non-core and/or non-shellfish. In this situation, it is necessary to completely move to full-fledged, species-by-species licensing; this essentially was the de facto licensing approach for most of the past seven years.

Recommendation 9.3

Specifically, I recommend:

- ***That the Core/Non-core approach to plant licensing be changed so that each active plant licence is amended immediately to only authorize those species that have been processed in the each of the last three years (2001-2003). Each species so authorized should be specified by the quota area from which it was acquired.***

- ***The addition of any individual species to a licence should be subject to the requirements of the resource-threshold approach as explained below.***
- ***For emerging species, this approach should limit licensing to the first two processors requesting authorization until additional entry can be approved under the resource-threshold approach.***

This approach of identifying species by quota area of origin will be useful if some form of individual sharing is also implemented.

9.2.3 Adopt a Resource-Threshold Approach

One of the major deficiencies in licensing actions to date has been the lack of any clear or explicit connection to the amount of raw material required by existing or newly licensed facilities. Licences have been issued with no apparent assessment of whether the necessary raw material would be available on an incremental basis or would simply come from an already fully subscribed supply. In all too many cases, the latter was the reality. The results of this approach quickly become too many plants for the available raw material supply; and then the addition of even more individual capacity to compete for raw material with eventual unsustainable financial commitments for all companies. This could be avoided, or at least lessened, by adopting a resource-threshold approach for all licensing actions.

Under this approach, no new species licences would be issued or transferred, unless an adequate level of raw material existed for all plants processing the species in question. This means existing active plants would have available to them a specified average amount of each licensed species before additional capacity for that species would be authorized in the form of a new entrant or by a transferred licence. (In this case, an existing active facility wishing to add the species to its licence list should be considered before a completely new entrant.)

Recommendation 9.4

My specific recommendation is as follows:

- ***That the Department adopt a resource-threshold approach in the species licensing system recommended above that would require specified average levels of raw material be available before any new licensing action could be approved. This***

requirement should apply to the authorizing of additional capacity (in a species and in an area) whether by licensing a new entrant or approving a transfer of an existing active licence.

- ***That the Department develop these average raw material requirements by species in conjunction with industry and by using bench-mark or pro-forma cost and revenue data that are acceptable to existing licence holders. These should be average industry level targets that would help prevent excessive numbers of licensed operations coming into existence.***

9.2.4 Strategic Processing Regions

No clear connection of fish processing activities to regional rural economic initiatives has ever been definitely articulated. This is in spite of numerous past and continuing attempts to do so. In some instances, the notion has been more one of what rural development initiatives can do for fish processing operations rather than the reverse. The lack of any significant degree of diversification in the rural economy means the fish processing sector is still being unwisely viewed as the major source of rural economic development opportunities. Indeed, it makes more sense to view the issue from the other angle; that viable and vibrant fish processing operations will generate more economic spin-offs and contribute to more rural economic growth than would an overburdened and financially assisted sector.

Viable fish processing operations cannot exist on the scale that is currently licensed; some degree of consolidation is necessary and will take place with or without government's direction. In this context, the government should adopt a strategic regional processing activity approach in its licensing activities. This approach would direct fish processing activities into specific strategic regions by using selected criteria to prioritize licensing applications and give higher ratings to those that contribute to this objective. This will actually serve two purposes: the rural development role described above and the future need to re-align location of fish processing with population changes. In the latter instance, development and growth of strategic processing regions may influence some of the population movement that appears to be inexorably taking place from rural to more urbanized locations. This urbanization of population will deprive fish processing of needed labour; that activity is unlikely to be able to compete for labour in, or even near, large urban environments.

Recommendation 9.5

In this context, I recommend:

- ***That the Department approve only fish processing proposals that would be located in areas with all of the following characteristics:***
  - ***Proximity to resources to be processed.***
  - ***Proximity to an adequate area labour pool.***
  - ***Existing processing facilities.***
  - ***Existing harbour facilities for landing, offloading and tie-up requirements.***
  - ***Existing industrial infrastructures, e.g. adequate electric power supplies, water supplies etc.***
  - ***Proximity to acceptable levels of social, educational, health, telecommunications and commercial services.***
- ***Licensing proposals in this context should include new entry, expansion or relocation (transfer).***

The concept of location should be a rural area or locality as opposed to a single town or municipality. Examples might be the greater Bonavista-Port Union area, Twillingate-New World Island, the foot of the Burin Peninsula etc. Large urban environments, such as the metropolitan areas of St. John's and Corner Brook, would not be included in these strategic processing regions.

9.2.5 Transfer Policy Criteria

This element of licensing policy was given considerable attention in the announcement of the current policy in 1997. It was expected to have more impact than it actually did as only 11 licence transfers have been affected since then. A public notification and comment process was required only in this area. That may have had some effect on the relatively low numbers of such transactions. Nonetheless, transfer policy is a key part of any licensing system and the criteria involved should be kept current and relevant. The proposal to move to a species-by-species licensing approach requires a transfer policy that supports that type of system. As well, the strategic regional processing proposal gives special meaning to transfer of processing authorities in such a directed fashion.

Recommendation 9.6

Accordingly, I recommend:

- ***That the Department adopt the following criteria for approval of licence transfers:***
    - ***The present public notification requirement should remain in effect.***
    - ***Active authorizations only may be transferred.***
    - ***The authorization for an individual species may be transferred.***
    - ***Transfers must be offered first within the resident NAFO Sub-Division, then to each of the immediately adjacent and then to the next nearest etc.***
    - ***The precise location of the transferred authority should be determined in light of the characteristics for strategic processing regions outlined above.***
    - ***The transfer should also meet the resource-threshold requirements proposed above.***

9.2.6 Further Processing

The notion of further processing as a solution to many of the problems associated with the fish processing sector is a prevailing one. While there is no consistent definition of this activity, many, inside and outside the industry, espouse it as high order priority. A later recommendation will address it in the context of individual sharing arrangements. The proposed requirement for Annual Processing Plans also implies more focusing on further processing as an objective. There is a licensing provision now in place to encourage secondary processing operations as defined in regulations.

Recommendation 9.7

In the latter case, I recommend:

- ***That the Department maintain its current regulatory approach as an incentive to secondary processing.***

9.2.7 Annual Processing Plans

The point was made many times in the course of the Commission's consultations that processing licence holders are not required to make any annual commitments to the Department other than to submit a standard application form and the required fee. There is no accountability involved, other than adherence to general regulations, for the privilege of receiving a restricted licence to process a public resource. The comparison was made with the harvesting sector where licence holders have to submit Conservation Harvesting Plans for approval before a fishery will be opened.

I see no good reason why all holders of processing authorizations should not be required to present a Processing Plan as part of the annual renewal process and an end-of-season report on the extent to which plans were fulfilled.

Recommendation 9.8

Therefore, I recommend:

- ***That all applicants for annual processing authorizations be required to submit a Processing Plan with the licence renewal application outlining such items as intended operations by species, types and expected quantities of final products, expected market destinations, levels and durations of employment etc. An end-of-season report should also be required outlining the actual outcomes compared to those planned or proposed. The licence for the following year should not be issued until this report is received and assessed. The Department should make the contents of the annual Processing Plan part of the regulatory conditions attached to processing licences.***

9.2.8 Reporting of Shareholders Lists

There is currently an annual requirement for processing licence holders to report the names of their shareholders. While the Special Panel on Corporate Concentration concluded there was no need for concern with the level of control at that time, a watching brief should be maintained on it. In addition, current proposals for individual raw material allocations raise other sets of concerns about the degree of concentration of ownership, especially when an even more valuable privilege than just an operating licence is involved.

Recommendation 9.9

I recommend:

- ***That the Department maintain and enforce the annual requirement to report the shareholders of the corporate entity to which the processing licence is issued.***
- ***That this requirement also include reporting the shareholders of any other corporate entity with any ownership in the licensed operation.***
- ***That the Department review the information each year to identify any emerging trends in concentration of ownership in the fish processing sector.***

9.2.9 Decision-Making in the Licensing Program

Changing the manner in which licensing decisions are made was the one issue on which there was virtually unanimous agreement in all the Commission's consultations. The view held by all participants in the fishery was that an independent board must be established to administer licensing decisions in a public and transparent manner. This is viewed as the only way to eliminate unexpected, unexplained and simply poor decisions. Almost everyone pointed to the splurge of crab and shrimp licences and the resulting chaos as ample proof of the need for such an arrangement. Support for such arrangements has been lukewarm, at best, in the past; the current groundswell of support is new.

This arrangement does not diminish the power of the Minister; he simply delegates the decision-making function to an arms-length board that makes licensing decisions against the policy criteria and guidelines he establishes. It does not eliminate the other licensing duties of the

Department because it would still be responsible for licensing policy development, administering the annual renewal of licences and monitoring terms and conditions attached to them. This arrangement would free the Minister and senior executives from the time-consuming matters of licensing issues and allow more time for strategic and longer term planning for management of the processing sector.

Recommendation 9.10

I recommend strongly:

- ***That the Department establish an arms-length board to administer decisions on all licensing proposals or requests made to the government. This board should consist of individuals who are knowledgeable, but independent, of the fishing industry. Decisions administered by the board would be made against policy guidelines, criteria or directions given to it in a public manner by the Minister. There should be public notification of all requests or proposals for a licensing decision and opportunity for statement of views by affected parties. All decisions made by this board and the rationale for them should be on the public record.***
- ***That a substantial application fee (at least $1,000) be established for submission of licensing proposals to the board. This would discourage proposals that are outside established policy.***

9.3 OTHER MANAGEMENT MEASURES

There are two other matters that are not covered by the proposals for realignment of licensing measures outlined above. These include input by industry members to policy formulation that is usually a significant feature of such activities today. The second matter is a concept that goes beyond the traditional uses of limited-entry licensing approaches and concentrates on control of capacity by more direct means.

9.3.1 Advisory Committee

A significant deficiency in the provincial government's conduct of its responsibilities for management of the processing sector is the lack of any formal or continuing system of consulting with stakeholders in the processing sector. Such a consultative mechanism is badly needed.

Recommendation 9.11

I recommend:

- ***That the Department establish a formal and ongoing consultative arrangement to provide input to policy decision-making on a scheduled basis, and more frequently when unforeseen issues arise. This arrangement should take the form of a formal advisory committee comprising industry participants and the senior executive of the Department. This committee should meet preferably on a quarterly basis, but at a minimum twice a year. In the latter case, this should be immediately after the main fish processing season (early November) and again in mid-winter (Late February/early March). Committee membership should consist of representatives selected from, or nominated by, all participant groups in the industry. This would include inshore and offshore harvesters, processing industry associations and processing workers. Meetings should be formally scheduled, chaired by the Deputy Minister with agendas and meeting material circulated in advance. Meeting minutes or a record of proceedings should be prepared and circulated as soon as possible after meetings.***

9.3.2 Individual Raw Material Shares

The concept of individual raw material shares for processing licence holders has been around the provincial processing industry scene since at least 1996. During the Commission's consultations no other serious alternatives to this approach was put forward other than weekly caps on individual plant production and vessel landings. That approach might solve some of the operational instability in the industry but would not remove any of the underlying causes of it.

The processing sector does display much the same irrational and destructive behaviour as did the harvesting sector under competitive fishing. In the latter case, even with limited entry licensing, the destructive behaviour results in overcapitalization, zero profits and erosion of the resource base. In the provincial processing sector, which also has been under limited entry, this results in excessive capital investment, chaotic operating seasons and extreme and irrational competitive activity that eventually threatens the overall economic base of the industry. This becomes even more acute when one species is very lucrative compared to others such as is now the case with crab.

Limited entry licensing is probably just as ineffective in the processing sector as it has been in harvesting. The management of the latter has moved to a system of output controls after the use of input controls did not work. The current proposal for individual raw material shares in processing is a variant of that approach, in that the output of plants are translated into raw material equivalents that are shared amongst licence holders as purchasing entitlements. As these allocations are acquired from individual harvesters, they are processed into the final products deemed most profitable by each licence holder.

However, the point at issue remains that the claimed benefits of individual raw material shares in fish processing have not been observed anywhere because no such model has yet been used. The claimed more orderly operating season is fairly likely to result but there is no guarantee the other results, such as higher average port prices, longer duration of employment and further processing will occur. Still, there are enough conceptual similarities to harvesting IQs, that it is worth trying on a cautious trial basis to determine which of the claimed beneficial results will occur. Processors must do a better job of convincing harvesters, plant workers and government that this arrangement has sufficient merits to justify implementing it on a more permanent basis. (They have claimed that they were not asked to agree when IQs were instituted in the harvesting sector. That may be true, but there was no opposition to that approach as there is now to individual raw material shares. Moreover, the approval of harvesting IQs is in the federal domain.)

In addition to the industry claims of greater stability and increased efficiencies, the concept of individual raw material shares can be a rationalization mechanism that the Department can direct in almost any desired direction by use of an accumulation and transfer policy.

Recommendation 9.12

For all those reasons and others outlined in Chapter 6, I recommend:

- ***That the following approach to the implementation of individual raw material shares for a two-year trial period be adopted by the Department:***
    - ***Development of a proposal for Individual Raw Material Shares in a given species should proceed when at least 3/4 of the active processing licence holders involved agree to such an arrangement and they can satisfy the Minister that there are, or will be, no substantive and reasonable objections from plant workers and harvesters.***
    - ***The processing licence holders for that species must then develop individual shares that are acceptable to all and which will be implemented as condition of licences. The process for developing the shares must include an independent arbitration process instituted, and paid for, by the processing licence holders so that no unreasonable gains or losses in sharing occurs.***
    - ***The sharing arrangement will not include inactive licence holders.***
    - ***There will be no permanent transfers for the two-year trial period.***
    - ***In-season transfers may be made on approval of the Minister. These should be proposed and approved in accordance with the transfer criteria recommended above.***
    - ***These in-season transfers should be restricted to a portion of the total share. A transfer of a total share can only be permitted once, the second time it would be forfeited and reallocated in accordance with the proposed transfer criteria.***
    - ***An independently operated and arms-length system for monitoring and control of the sharing arrangement, that is acceptable to and approved by, the Minister, must be implemented at the cost of the processing licence holders. This monitoring system must contain administrative rules and guidelines for operation of the share system, including sanctions for over-runs of shares.***

- ○ *Performance criteria should be established by the Minister for an evaluation of the program at the end of the two-year trial period. These should include the sorts of beneficial outcomes claimed by the industry in support of these arrangements. An independent Review and Evaluation Committee should be established to monitor the trial arrangement and to conduct the final evaluation.*

- *If the system is made permanent, the following additional provisions should apply:*
  - ○ *Limits should be placed on holdings of individual shares by any single processing licence holder as well as on levels of accumulation of shares by individual corporate groups. These limits should be determined using the type of approach suggested for Resource-Thresholds. They should be set at levels (for each licensed species) allowing for minimum efficient plant sizes, an acceptable overall degree of concentration of ownership, and an acceptable total numbers of plants in an acceptable regional distribution. Any existing scale of operation (facility or corporate group) that is in excess of these limits would be "grandfathered".*
  - ○ *Processing licence holders should be required (as part of the annual licence fee) to contribute to a Rationalization Fund for each species that would be used to purchase individual shares from any facility that will exit the industry for re-distribution in line with the new policies on transfer criteria, strategic processing regions and limits on holdings. The shares held by a facility exiting the industry would be acquired through the Fund on the basis of a reverse auction. The setting of reverse auctions could be triggered by such factors as quota declines beyond some pre–set level. These provisions would not preclude ownership change of facilities that remain operating in the same location, subject to the accumulation limits that are adopted.*
  - ○ *Government should contribute to this fund as well so that adjustment measures also could be provided to workers displaced by these consolidations.*

- ***Licence fees under individual raw material shares should be increased to reflect the increased operating benefits these give to a licence holder. These increases would vary with the market value of the individual species.***
- ***The current support of secondary processing should be reflected in these arrangements by providing a raw material reserve for holders of secondary processing only licences that would be allocated by the Department against annual requests.***
- ***As well, further processing could be encouraged by reserving a portion of each individual share for allocation when definite and acceptable commitments are made to the effect.***

9.3.3 Price-Setting Mechanisms

The above discussion and recommendations on an individual raw material sharing arrangement contains an implicit connection to the need for an effective and transparent price-setting system and to broader collective bargaining system issues. I am very reluctant to comment in detail on these matters as they are outside my specific mandate, I did not consult industry members on these subjects and I am not qualified in that specialized field. However, I was given a number of unsolicited comments on the subject. These were from companies that indicated the new industry association would not be mandated to engage in collective bargaining, that they were disadvantaged by not being certified and want to have raw material sharing as a pre-condition to re-engaging in the process. These in themselves create a number of connections to the overall issue and some of the recommendations I have just made for a new management system for the fish processing sector.

The most obvious connection is that an individual raw material sharing arrangement for processors changes the current playing field and, therefore, must be finalized before any form of price-setting mechanism can properly function. It is possible that design and implementation of such a system could be made part of the exercise to establish whatever price-setting mechanism becomes used in the industry.

In terms of immediate first steps for 2004, a decision on the form of price mechanism that will be in place is critical to the type of fishery that will take place. With the FOS model no longer operative and no industry association intending to engage in collective bargaining, the approach of company-by-company negotiation is the only collective bargaining option currently available. This could produce industry-wide prices if all companies pay the price negotiated with several target companies. However, collective agreements provisions arrived in this fashion are not binding on the industry as a whole as was the case under FOS. Amongst other things, this eliminates universal dockside grading for the three main species as it has existed for the past several years.

There are several steps government could take to ensure that an operative price-setting mechanism is in place in the absence of any industry agreement to proceed otherwise. These include legislating the FOS model back into force, imposing a binding arbitration model or doing nothing. One of these types of options will have to be chosen early in 2004 unless there is a bridging of the current gap on raw material sharing and resumption of industry-wide collective bargaining.

CH. 10 SUMMARY CONCLUSIONS AND RECOMMENDATIONS

This report is the result of an extensive review of the fish processing policy of the Department of Fisheries and Aquaculture and of a number of other issues related to management of that sector. The report is based on wide-spread consultations with participants from all parts of the industry, other related interest groups as well as federal and provincial government officials. It also benefited from a large amount of data and information assembled by staff assigned to the Commission and from the insights provided in several external studies carried out by other experts. The final result may be somewhat detailed in many areas but this approach was taken in the interests of shedding as much light as possible as certain perplexing and never-ending issues such as further processing and inter-provincial landed price disparities.

The provincial fishing industry is a totally changed scene from a decade ago. A narrow species base now produces levels of landed and product values higher than any experienced before. Problems of excess capacity, quality practices, seasonality and low incomes for processing workers are amongst the main issues facing this sector. A declining and ageing population that is moving away from more isolated areas creates further challenges for processing operations and government policies. A surplus labour and underemployment situation compounds this and contributes to an unsatisfactory level of average processing incomes.

Some significant issues exists in and around the crab processing sector where the issues of incomes and declining levels of further processing fuel each other. Concerns about quality standards have arisen again in some instances as has workers' unease with export of sections for reprocessing. The interminable issue of disparities in port prices has emerged again this past season.

The Department's Quality Assurance Program is judged by most participants to have some considerable degree of success but further improvements and modernization are still possible. The management of the processing sector through the licensing system have been given failing marks that point to a need for some significant changes. In addition to amending most of the current licensing measures, the added instrument of individual raw material shares has been proposed as a solution to many of the current problems. The regulatory framework for fish processing works well for the most part. Some improvements in regulation making and enforcement can be made.

All of these areas have been addressed in various ways in the report and a series of recommendations were prepared. These are listed below:

CHAPTER 4 CRAB SECTOR ISSUES

Recommendation 4.1

- ***That all licensed crab processors be required to process at least 10 percent of their total production beyond the industrial section pack stage in this province unless it is clearly demonstrated that this is not financially feasible. This should become part of the annual Processing Plan recommended in Chapter 9.***

Recommendation 4.2

- ***That the Department prepare an annual situation report on the amount of crab sections leaving the province from each licensed facility, the destinations to which it is shipped, and the levels of U.S. imports of all crabmeat from all sources. These data should be analysed to identify trends in the level and destinations of such exports and the relationship to the trend in U.S. crabmeat consumption and the production of it in this province. This annual situation report should be made available to all parts of the industry.***

Recommendation 4.3

- ***That the Department institute an in-season monitoring of developments in processing and marketing activities that provides an early warning system for quality standards problems. This should include "heads-up" feedback from Regional Inspection staff and regular and targeted market intelligence reports. The Departmental executive should make this check-up a regular feature of industry monitoring.***

- *If this monitoring indicates these practises are continuing, the use of licence suspensions and/or the introduction of generic packing practises should be pursued.*

CHAPTER 5 QUALITY ASSURANCE PROGRAM

Recommendation 5.1

- *That the Department of Fisheries and Aquaculture continue the Quality Assurance Program with a renewed focus on raw material quality from the dockside through to the holding rooms of processing plants. Changes to the program should include:*
    - *Expanding and updating species quality standards, in consultation with industry, at all stages of raw material handling including new standards for temperature and stacking, standards for lapsed time from harvest to processing, transportation of raw material, and handling on-board vessels.*
    - *Improving surveillance by expanding both the geographical coverage and the hours of operation of the program.*
    - *Reviewing its enforcement measures to ensure adequate types of assessments are being undertaken.*
    - *Reactivating the industry quality working group with clear direction and scheduled meetings.*

Recommendation 5.2

- *That an ongoing training program be implemented for Inspectors to ensure they have the necessary knowledge to deliver the Quality Assurance Program effectively.*

Recommendation 5.3

- *That an objective method of testing the quality of shrimp be developed for the next harvest season.*

Recommendation 5.4

- *That quality standards be developed for maintenance and cleaning of holding system equipment on-board vessels.*

Recommendation 5.5

- *That a training program be developed for crew members and persons offloading fish and shellfish.*

Recommendation 5.6

- *That a ticketing system be developed for minor violations with a level of fines high enough to deter violations.*

CHAPTER 8 THE REGULATORY FRAMEWORK FOR FISH PROCESSING

Recommendation 8.1

- *That the Department take all necessary steps to defend and properly exercise its authorities to manage the fish processing sector by obtaining high quality and authoritative legal advice on all regulatory measures it undertakes.*

Recommendation 8.2

- *That the Department institute an annual Legislative Review of the Fish Inspection Act and the associated regulations to ensure that both are up-to-date and clearly provide the necessary authorities for all actions taken under its provisions. This should include the specific new provisions proposed for the Quality Assurance Program.*

Recommendation 8.3

- *That the Department bring its enforcement activities up to the standards expected of a law enforcement function by ensuring that required training, resources, procedures and processes, code of conduct, annual operational plans, enforcement* *policies and organizational arrangements are properly provided for and contribute to the effective operation of this function. This should include the necessary organizational change to separate Departmental Headquarters responsibility for enforcement from the development and implementation of fish processing policy.*

Recommendation 8.4

- *That the Department develop a ticketing system for first and minor infringements of all Fish Inspection Act Regulations, increase the general levels of fines and develop a policy for use of licence suspensions. The latter should include an indication of the circumstances that must prevail before this latter measure could be used.*

CHAPTER 9 NEW MANAGEMENT SYSTEM FOR FISH PROCESSING

Recommendation 9.1

- *That the following be adopted as the longer-term objectives for government's involvement with this sector:*
  - *To provide the regulatory conditions for a stable and competitive processing sector to exist with minimal public support;*
  - *To ensure employment levels that provide adequate incomes;*
  - *To promote cooperation in the industry that enhances product quality and optimizes total returns from processing available fish resources;*
  - *To seek a degree of balance between regional resource availability and regional processing capacity so that viable fish processing activities contribute positively to rural economic conditions.*

Recommendation 9.2

- *That all inactive and cancelled licences be considered to exist no longer and that lists of them not be maintained. All such operations/facilities/locations must then start over completely under universal application of the resource-threshold criteria* *to licence proposals (as outlined below). Qualitative factors should no longer be used to support a reopening proposal. As well, existing operations should be deemed inactive as soon as they fail to meet a minimum production requirement in each of two consecutive years. This minimum production level should be at least five percent of the rolling five-year average for the facility. When that requirement is not met, the licence immediately ceases to exist.*

Recommendation 9.3

- *That the Core/Non-core approach to plant licensing be changed so that each active plant licence is amended immediately to only authorize those species that have been processed in the each of the last three years (2001-2003). Each species so authorized should be specified by the quota area from which it was acquired.*
- *The addition of any individual species to a licence should be subject to the requirements of the resource-threshold approach as explained below.*
- *For emerging species, this approach should limit licensing to the first two processors requesting authorization until additional entry can be approved under the resource-threshold approach.*

Recommendation 9.4

- *That the Department adopt a resource-threshold approach in the species licensing system recommended above that would require specified average levels of raw material be available before any new licensing action could be approved. This requirement should apply to the authorizing of additional capacity (in a species and in an area) whether by licensing a new entrant or approving a transfer of an existing active licence.*
- *That the Department develop these average raw material requirements by species in conjunction with industry and by using bench-mark or pro-forma cost and revenue data that are acceptable to existing licence holders. These should be average industry level targets that would help prevent excessive numbers of licensed operations coming into existence.*

Recommendation 9.5

- *That the Department approve only fish processing proposals that would be located in areas with all of the following characteristics:*
    - *Proximity to resources to be processed.*
    - *Proximity to an adequate area labour pool.*
    - *Existing processing facilities.*
    - *Existing harbour facilities for landing, offloading and tie-up requirements.*
    - *Existing industrial infrastructures, e.g. adequate electric power supplies, water supplies etc.*
    - *Proximity to acceptable levels of social, educational, health, telecommunications and commercial services.*
- *Licensing proposals in this context should include new entry, expansion or relocation (transfer).*

Recommendation 9.6

- *That the Department adopt the following criteria for approval of licence transfers:*
    - *The present public notification requirement should remain in effect.*
    - *Active authorizations only may be transferred.*
    - *The authorization for an individual species may be transferred.*
    - *Transfers must be offered first within the resident NAFO Sub-Division, then to each of the immediately adjacent and then to the next nearest etc.*
    - *The precise location of the transferred authority should be determined in light of the characteristics for strategic processing regions outlined above.*
    - *The transfer should also meet the resource-threshold requirements proposed above.*

Recommendation 9.7

- *That the Department maintain its current regulatory approach as an incentive to secondary processing.*

Recommendation 9.8

- *That all applicants for annual processing authorizations be required to submit a Processing Plan with the licence renewal application outlining such items as intended operations by species, types and expected quantities of final products, expected market destinations, levels and durations of employment etc. An end-of-season report should also be required outlining the actual outcomes compared to those planned or proposed. The licence for the following year should not be issued until this report is received and assessed. The Department should make the contents of the annual Processing Plan part of the regulatory conditions attached to processing licences.*

Recommendation 9.9

- *That the Department maintain and enforce the annual requirement to report the shareholders of the corporate entity to which the processing licence is issued.*
- *That this requirement also include reporting the shareholders of any other corporate entity with any ownership in the licensed operation.*
- *That the Department review the information each year to identify any emerging trends in concentration of ownership in the fish processing sector.*

Recommendation 9.10

- *That the Department establish an arms-length board to administer decisions on all licensing proposals or requests made to the government. This board should consist of individuals who are knowledgeable, but independent, of the fishing industry. Decisions administered by the board would be made against policy guidelines, criteria or directions given to it in a public manner by the Minister. There should be public notification of all requests or proposals for a licensing decision and opportunity for statement of views by affected parties. All decisions made by this board and the rationale for them should be on the public record.*

- *That a substantial application fee (at least $1,000) be established for submission of licensing proposals to the board. This would discourage proposals that are outside established policy.*

Recommendation 9.11

- *That the Department establish a formal and ongoing consultative arrangement to provide input to policy decision-making on a scheduled basis, and more frequently when unforeseen issues arise. This arrangement should take the form of a formal advisory committee comprising industry participants and the senior executive of the Department. This committee should meet preferably on a quarterly basis, but at a minimum twice a year. In the latter case, this should be immediately after the main fish processing season (early November) and again in mid-winter (Late February/early March). Committee membership should consist of representatives selected from, or nominated by, all participant groups in the industry. This would include inshore and offshore harvesters, processing industry associations and processing workers. Meetings should be formally scheduled, chaired by the Deputy Minister with agendas and meeting material circulated in advance. Meeting minutes or a record of proceedings should be prepared and circulated as soon as possible after meetings.*

Recommendation 9.12

- *That the following approach to the implementation of individual raw material shares for a two-year trial period be adopted by the Department:*
    - *Development of a proposal for Individual Raw Material Shares in a given species should proceed when at least 3/4 of the active processing licence holders involved agree to such an arrangement and they can satisfy the Minister that there are, or will be, no substantive and reasonable objections from plant workers and harvesters.*
    - *The processing licence holders for that species must then develop individual shares that are acceptable to all and which will be implemented as condition*

of licences. The process for developing the shares must include an independent arbitration process instituted, and paid for, by the processing licence holders so that no unreasonable gains or losses in sharing occurs.

- *The sharing arrangement will not include inactive licence holders.*
- *There will be no permanent transfers for the two-year trial period.*
- *In-season transfers may be made on approval of the Minister. These should be proposed and approved in accordance with the transfer criteria recommended above.*
- *These in-season transfers should be restricted to a portion of the total share. A transfer of a total share can only be permitted once, the second time it would be forfeited and reallocated in accordance with the proposed transfer criteria.*
- *An independently operated and arms-length system for monitoring and control of the sharing arrangement, that is acceptable to and approved by, the Minister, must be implemented at the cost of the processing licence holders. This monitoring system must contain administrative rules and guidelines for operation of the share system, including sanctions for over-runs of shares.*
- *Performance criteria should be established by the Minister for an evaluation of the program at the end of the two-year trial period. These should include the sorts of beneficial outcomes claimed by the industry in support of these arrangements. An independent Review and Evaluation Committee should be established to monitor the trial arrangement and to conduct the final evaluation.*

- *If the system is made permanent, the following additional provisions should apply:*
  - *Limits should be placed on holdings of individual shares by any single processing licence holder as well as on levels of accumulation of shares by individual corporate groups. These limits should be determined using the type of approach suggested for Resource-Thresholds. They should be set at levels (for each licensed species) allowing for minimum efficient plant sizes,*

an acceptable overall degree of concentration of ownership, and an acceptable total number of plants in an acceptable regional distribution. Any existing scale of operation (facility or corporate group) that is in excess of these limits would be "grandfathered".

- *Processing licence holders should be required (as part of the annual licence fee) to contribute to a Rationalization Fund for each species that would be used to purchase individual shares from any facility that will exit the industry for re-distribution in line with the new policies on transfer criteria, strategic processing regions and limits on holdings. The shares held by a facility exiting the industry would be acquired through the Fund on the basis of a reverse auction. The setting of reverse auctions could be triggered by such factors as quota declines beyond some pre–set level. These provisions would not preclude ownership change of facilities that remain operating in the same location, subject to the accumulation limits that are adopted.*
- *Government should contribute to this fund as well so that adjustment measures also could be provided to workers displaced by these consolidations.*
- *Licence fees under individual raw material shares should be increased to reflect the increased operating benefits these give to a licence holder. These increases would vary with the market value of the individual species.*
- *The current support of secondary processing should be reflected in these arrangements by providing a raw material reserve for holders of secondary processing only licences that would be allocated by the Department against annual requests.*
- *As well, further processing could be encouraged by reserving a portion of each individual share for allocation when definite and acceptable commitments are made to the effect.*

Appendix 1

Terms of Reference
Fish Processing Policy Review

On June 6, 2003 the Minister of Fisheries and Aquaculture announced that a Commissioner would be appointed to review the province's processing policy. The review is in response to the dramatic changes that have occurred in the industry and to determine what changes are required in the province's policies.

The review will cover all provincial policy including the issuance of licences, regional balance, industry stability, and maximizing the value of our resources. The review will also take into consideration the dramatic changes that have occurred in relation to resource availability and species processed. The Commissioner will review all aspects of provincial policy including the regulatory and legislative framework such as the Fish Inspection Act and associated regulations. This process will also be linked to the current call for joint management of the province's fishery. The Commissioner will undertake work to develop a complementary policy framework.

Preamble and Policy Context

The changes in the industry that have occurred since 1992 have been dramatic and far reaching. There have been substantial structural adjustment in the harvesting and processing sectors and the dynamics within the industry continue to require governments to adjust policies to changing conditions.

In 1997 the province introduced a processing policy framework designed to promote multi-species plants that contribute to strong communities and regions. Changes within the industry that have occurred since that time, combined with the new directions the industry is taking requires the province to revisit its processing policy.

The key objectives of the 1997 policy were:

- to promote industry stability, competitiveness and viability;
- to facilitate a regional balance between resource availability and industry capacity on a regional basis;
- to enhance the maximum operating period possible for processing plants; to enhance the quality of fish products; and,
- to maximize the economic benefits associated with their production.

One of the assumptions implicit in the 1997 policy was that groundfish stocks would recover in the short to medium term. The recent closures of the Northern and Gulf cod stocks clearly have signaled that this will not be the case. The current policy designated plants based on their historical groundfish processing activity. Groundfish landings, however, have declined from a 1977-1991 average of 560,000 tonnes to current levels of about 70,000 tonnes.

Current provincial policies were designed for a post groundfish era, but need to take into consideration the changing circumstances that have resulted in the industry moving to an industry focused on shellfish. There have been changes in the harvesting sector and the market place that need to be addressed.

Some fisheries have moved from competitive quota fisheries to an assignment of property rights through an individual quota system with the result that some harvesters now have more control of how and when they fish and to whom they sell their product.

Instability has characterized operations of both the processing and harvesting sectors over the past couple of years. This instability threatens the long-term future of rural Newfoundland and Labrador. The investments that have been made in the industry have been entirely private sector driven and funded. It would appear that in the current environment this capital is at risk.

The Department's processing policy also focused on key areas such as quality and industry stability. The province's quality assurance program has had some success, however, as with any program, there is room for improvement.

The province's processing policy was intended to provide stability for communities. As part of this, a limited entry licensing system has been pursued. The number of active primary licenses has declined from 196 in 1996 to 102 in 2003. While the limited entry system has had some success, the economic realities of rural Newfoundland and Labrador continues to place considerable pressure for the issuance of new licenses.

The stresses and problems we see in our fishery are not unique to Newfoundland and Labrador. Within Canada, the provinces of Nova Scotia, New Brunswick, British Columbia are facing serious industry problems. The fisheries in the EU and other areas overseas are also in serious trouble. Alaska, a jurisdiction with similar fisheries as Newfoundland and Labrador are implementing new systems for their harvesting and processing sectors with a goal of bringing greater stability to their communities.

The industry must respond to current demographic challenges. The workforce in Newfoundland and Labrador is ageing. This requires that the industry have a long-term strategy to deal with this issue. As well, the low income levels found in the processing sector will likely make it difficult for plant operators to attract labour in the future and solutions to this issue must be found.

Scope of Work

In completing its work, the Commissioner shall:

1. Assess the need for policy changes that are required as a result of the long-term closure of groundfish stocks. This includes, but is not limited to, a review of the province's core and non-core license policy and the consideration for strategic plants.
2. Assess the provinces's quality assurance program and indicate what changes may be required.

3. The processing sector has recommended implementation of a production quota system for plants. The Commissioner will review proposals for plant production quotas and assess whether production quotas will contribute to an equitable distribution of the wealth generated by the common property fisheries resources. This review should also examine the implications of production quotas to other industry stakeholders, including harvester and processing workers and include a review of the current individual quota system for harvesters and its impact on relationships with processing companies.

4. Specific to the crab sector:

   - Review and make recommendations relating to work content in the plants;
   - Carry-out a comparison of prices and related conditions for crab in Newfoundland and Labrador, Nova Scotia and New Brunswick;
   - Complete an analysis of crab section exports with a view to determining the destination of exports, the extent to which exported sections are reprocessed and into what product forms, and recommend a system for the tracking of product exports; and
   - Review industry performance in respect of product packing specifications and make recommendations to ensure maintenance of proper quality standards.

5. Review the demographics of the province's fish processing labour force and recommend measures to maintain and improve its viability.

6. Review and recommend policies related to the criteria for the issuance of new licences, including but not limited to: limited entry licensing, capacity or resources thresholds, regional balance definitions, criteria for the transfer of licenses, rationalization, and associated mechanisms to bring greater stability to the industry.

7. Review and recommend any necessary revisions to the regulatory framework associated with the province's processing policy.

8. Outline the policies that would be required for the incorporation of processing licensing into a new Joint Management Board.

Process

The processing policy review will be completed by mid December 2003, with the goal of introducing changes for the 2004 fishing season. The policy review will involve consultations with industry stakeholders including harvesters, processing companies, plant workers, communities and the federal government.

The Commissioner must draw upon other work that has been completed including the Special Panel on Corporate Concentration, the report of the Inshore Shrimp Panel, and the White Paper on Joint Management, and the Task Force on Fish/Crab Price Settlement Mechanisms.

The Government has also tried to bring about stability in the industry through an open and transparent collective bargaining process. The Final Offer Selection process is currently under review, the results of which should be incorporated in the work of the Commissioner.

The policy review will be completed with consideration to the results of the Atlantic Fisheries Policy Review (AFPR) initiative being undertaken by the Department of Fisheries and Oceans.

Appendix 2

Meetings Held

1. FFAW/CAW (E. McCurdy, G. Pretty, D. Decker), St. John's - September 3
2. FANL (A. O'Rielly) St. John's - September 4, October 30
3. Deep Atlantic (G. Mullowney and W. Waterman), St. John's - September. 8
4. LFUSCo (G. Linstead), St. John's - September 16
5. Herb Clarke, St. John's - September 16
6. Les Dean, St. John's - September 17
7. Paul Grant, Beothic Fish Processors, St. John's - September 22
8. Dave Vardy, St. John's - September 23
9. Richard Cashin, St. John's - September 23
10. Keith Billard, Town of Flower's Cove, St. John's - September 26
11. Ron Johnson, Torngat Fish Processors, Happy Valley-Goose Bay - October 6
12. Claude Rumbolt, Labrador Metis, Mary's Harbour - October 6.
13. Plant Workers, Mary's Harbour - October 7
14. Harvesters, Mary's Harbour - October 7
15. Town Council of Flowers Cove - October 7
16. Harvesters, St. Anthony - October 8
17. Harvesters, Plum Point - October 8
18. Plant Workers, Plum Point - October 8
19. Gould's Fisheries, Plum Point - October 9
20. Plant Workers, Harbour Breton - October 14
21. Harvesters, Harbour Breton - October 15
22. Gary Hoskins, Conne River - October 15

23. Plant Workers, Grand Falls - October 16

24. Harvesters, Grand Falls - October 16

25. Plant Workers, St. John's - October 17

26. Harvesters, St. John's - October 17

27. Lewis Macdonald, Dave Callahan, Stephenville - October 20

28. Town of Ramea, Lloyd Rossiter, Wilfred Cutler, Stephenville - October 20

29. Harvesters, Stephenville - October 20

30. Plant Workers, Stephenville - October 20

31. Plant Workers Group, Carbonear - October 21

32. Plant Workers, J.W. Hiscock, Carbonear - October 21

33. Harvesters, Carbonear - October 21

34. Plant Workers, Clarenville - October 22

35. Harvesters, Clarenville - October 22

36. Madonna and Geoff Moss, Happy Adventure Seafoods, Clarenville - October 22

37. Harvesters, Marystown - October 23

38. Melvin Murphy, Marystown - October 23

39. Plant Workers, Marystown - October 23

40. Derek Greene, EJ Green Ltd., St. John's - October 24

41. Don Mercer, Levi Lynch, Aubrey Mercer, Spencer Cutler, Frank Fleming, Wallace Wrice, Independent Fish Harvesters, St. John's - October 27

42. Roland Andrews, LIA Representative, St. John's - October 29

43. Robyn Quinlan, Derek Philpott, Quinlan Group, St. John's - October 29

44. Gilbert Linstead, Ken Fowler, LFUS, St. John's - November 2

45. Mike Rose, NAIA, Gerard Dominic, Garry Hartle, St. John's - November 4

46. Derek Rowe , Ray Andrews, Graham Roome, FPI, St. John's - November 6
47. Regional Economic Development Boards, St. John's - November 7
48. Fred Woodman, Woodman Sea Products, St. John's - November 12
49. Minister Taylor, Executive, St. John's - November 12.
50. Ches Penney, Iris Petten, Martin Sullivan, Ocean Choice International, St. John's - November 12
51. Bruce Wareham, HighLiner Seafoods (National Sea), St. John's - November 13
52. Jim Morry, Martin O'Brien, St. John's - November 14
53. Richard Allan, Russo Payne, Cliff Doyle, Roland King, Deer Lake - November 18
54. Maurice Murphy, Charlie F. O'Brien, Cape Broyle Sea Products, St. John's - November 19
55. Rosemary Buckingham, Paul Grant, Randy Janes, James Morry, Maurice Murphy, Karl Sullivan, Robyn Quinlan, St. John's - November 27
56. Vadem Oram, Terra Vista Ltd., St. John's - December 8

Plant workers and harvesters attending meetings with the Commission came from almost 100 communities. These included: Anchor Point, Arnold's Cove, Bay Bulls, Bay de Verde, Baine Harbour, Bear Cove, Benoit's Cove, Bishop's Falls, Black Duck Cove, Bonavista, Branch, Bridgeport, Brigus, Burin, Burnt Point, Campbell's Creek, Carbonear, Charlottetown, Clarenville, Comfort Cove, Corner Brook, Cox's Cove, Deadman's Cove, Eastport, Englee, Fortune, Fox Island River, Galis Cove, Garnish, Glovertown, Grand Beach, Grand Le Pierre, Green Island Brook, Green Island Cove, Gull Island, Hampden, Hant's Harbour, Harbour Breton, Harbour Grace, Harbour Round, Hermitage, Hickman's Harbour, Kings Cove, Jackson's Arm, Lamaline, Lanse au Loup, La Scie, Lawn, Leading Tickles, Lumsden, Mary's Harbour, Marystown, Mckay's, Meadows, Mobile, Monkstown, Musgrave Harbour, New Ferrole, Newtown, Nippers Harbour, Northern Bay, Old Perlican, Ochre Pit Cove, Parkers Cove, Placentia, Petite Forte, Point Lance, Port aux Basques, Port de Grave, Port Saunders, Red Harbour, St. Brendans, St. Bride's, St. David's, St. Lawrence, St. John's, St. Jones Within, St. Lewis, St. Mary's, St. Teresa's, Seldom, Salvage, Seal Cove, Snook's Arm, Stephenville, Summerford, Triton, Trepassey, Twillingate, Upper Island Cove, Valleyfield, Wareham, West Bay, Wild Cove, and Witless Bay.

Appendix 3

List of Written Submissions

1. Ann Penney, The Harbour Authority of Harbour Grace – September 29, 2003
2. Rick Hoyles, FFAW Executive/Beothic Fish Processors Ltd. – October 16, 2003
3. Elizabeth Layman, Processing Worker – October 21, 2003
4. Joanne Doyle, Plant Worker – October 21, 2003
5. Eddy Oake, Fogo Island Co-Operative – October 21, 2003
6. Mary Shute, Crab and Shrimp Survival Committee – October 21, 2003
7. Robert Coombs, Innu Development Limited Partnership – October 22, 2003
8. Allan Moulton, Marystown Local FFAW-CAW – October 23, 2003
9. Flower's Cove Town Council – October 30, 2003
10. Wayne Waterman, Deep Atlantic Seaproducts Inc. – October 31, 2003
11. Angela Burton, FFAW Local, Fermeuse – October 31, 2003
12. Don Stewart, Coast of Bays Corporation – November 5, 2003
13. Paul Grant, Beothic Fish Processors Limited – November 8, 2003
14. Maurice Murphy, Cape Broyle Sea Products Ltd. – November 17, 2003
15. Louise, Labrador City – November 14, 2003
16. Karl Sullivan, AD HOC Group of Fish Processors – November 23, 2003